On Line Tender Notice No.**83** of 2013-14
Administration of Dadra & Nagar Haveli, U.T,
Office of the Medical Superintendent,
Shri Vinoba Bhave Civil Hospital
Tel.No.(0260) 2642940, 2640615
email id: svbch.sil@gmail.com

No.MS/VBCH/ROTC/2012-13/197/5837 Silvassa
Date : 25/11/2014

# e-Tender Notice

Tender for Renovation of O.T. Complex at Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli, Silvassa.

The Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli, Silvassa on behalf of President of India, invites on line tender on https://dnh.nprocure.com from the Manufactures/Authorized Dealers/Suppliers for supply of below mentioned work.

| Sr. No. | Particulars | Estimate Amount | Earnest Money Deposit (EMD) | Tender Fees (Non Refundable) | e-Tender ID No. |
|---|---|---|---|---|---|
| 01. | **Renovation of Operation Theatre Complex** for Shri Vinoba Bhave Civil Hospital, Silvassa. | ₹.13.30 Crore | ₹.33,25,000/- | ₹.5,000/- | 160190 |

| Key-dates | Date | Time |
|---|---|---|
| Bid document downloading Start Date | 26/11/2014 | - |
| Bid document downloading End Date | 16/12/2014 | 12.00 Hrs. |
| Last Date & Time for receipt of Bid | 16/12/2014 | 14.00 Hrs. |
| Preliminary Stage Bid Opening Date | 16/12/2014 | 15.00 Hrs. |
| Technical Stage Bid Opening Date | 16/12/2014 | 15.30 Hrs. |
| Commercial Stage Bid Opening Date | 18/12/2014 | 11.00 Hrs. |

Bidders have to submit price bid in Electronic format only on https://dnh.procure.com website till the last date and time for submission. Price Bid in Physical format shall not be accepted in any case.

Bid submission should be done only with Tender Fees and EMD in original by R.P.A.D./ Speed Post or to be deposited in the tender box kept in the office of the undersigned. However, Tender Inviting Authority shall not be responsible for any postal delay.

1. The EMD & Tender Fees should not be forwarded by cash.
2. The Tender fees will be accepted only in form of DD any Nationalized or Scheduled Bank of India payable in Silvassa.
3. The EMD will be accepted in form of FDR /A/c Payee Demand Draft /Bankers Cheque or Bank Guarantee from any commercial banks in an acceptable form payable at Silvassa in favor of under signed.

The tender inviting authority reserves the right to accept or reject any or all the tender to be received without assigning any reasons thereof. Tender can be downloaded from www.nprocure.com, www.dnh.nic.in or www.vbch.dnh.nic website.

In case bidder needs any clarification or if training required for participating in online tender, they can contact the following office. "(n) Code Solution –A Division, GNFC Ltd." 403, GNFC info Tower, Bodakdev, Ahmedabad – 380 054, Gujarat (India) **Email**: nprocure@gnfc, **Net Fax** :+97 7926857321, **Website** : www.nprocure.com.

***Sd/-***
**Medical Superintendent**
Shri Vinoba Bhave Civil Hospital
Dadra & Nagar Haveli
Silvassa – 396 230

Copy to :-

1) PS to Hon'ble Administrator, Dadra & Nagar Haveli, Silvassa for information.
2) P/A to Secretary (Health), Dadra & Nagar Haveli, Silvassa for information.
3) All Heads of Office, Dadra & Nagar Haveli, Silvassa for information & n.a.
4) CPO, Dadra & Nagar Haveli, Silvassa for wide publicity in Newspaper.
5) Director General, Indian Trade Journal, Kolkata for publication on Newspaper.
6) I.T.Dept., Dadra & Nagar Haveli, Silvassa with a request to publish in Website.
7) Website In-charge, Shri VBCH, Silvassa to publish in VBCH Website.
8) Accounts Section, Shri VBCH, Silvassa for information.
9) Central Medical Store, Shri VBCH, Silvassa for Information.
10) Procurement & Tender Division, Shri VBCH, Silvassa for Information.

**INDEX**


| Sr. | Particular | Page No. |
|---|---|---|
| 1. | Important dates | 01 |
| 2. | Guideline to bidders for implementation of e-procurement system | 04 |
| 3. | Section- I (Invitation for bid) | 06 |
| 4. | Section –II (Instructions to bidder) | 08 |
| 5. | Section –III (General Conditions of Contract) | 24 |
| 6. | Section –IV (Special Conditions of Contract) | 37 |
| 7. | Section –V (Bid Form) | 44 |
| 8. | Table of Annexure | 45 |
| 9. | Technical Specifications and Scope of Work | 67 |

U.T. ADMINISTRATION OF DADRA & NAGAR HAVELI,
OFFICE OF THE MEDICAL SUPERINTENDENT,
SHRI VINOBA BHAVE CIVIL HOSPITAL,
SILVASSA

Terms and Conditions for the **"**Renovation of Operation Theatre Complex" for Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli, Silvassa.

**Instructions to Bidders :**

1. **Set Up of Bidders' Computer System:**
   In order for a Bidder to operate on the e-Procurement System, the Computer System of the Bidder is required to be set up for Operating System, Internet Connectivity, Utilities, Fonts, etc. A help file on setting up of the Computer System can be obtained from e-Procurement Cell.

2. **Publishing of N.I.T :** For the Tenders processed using the e-Procurement System, only a brief Advertisement related to the Tender shall be published in the newspapers and the Detailed Notice shall be published only on the e-Procurement System. The contractors can view the Detailed Notice and the time schedule for all the Tenders processed using the e-Procurement System on the website https://dnh.procure.com

3. **Key Dates:** The Bidders are strictly advised to follow the time schedule (Key Dates) of the Tender for their side for tasks and responsibilities to participate in the Tender, as all the stages of each Tender are locked before the start time and date and after the end time and date for the relevant stage of the Tender as set by the concerned Department Official. However, it is advised to complete the required stage well in advance and not to wait for last date and time for processing(the department would not be responsible for last minute errors).

4. **Online Processing Fee:**
   The Tender documents can be downloaded ONLY online. The Tender shall be available for download to the concerned eligible bidders immediately after online release of the Tender and upto the scheduled date and time as set in the key dates. Tender Document Fees ₹ 5000/- should be submitted by Demand Draft payable at Silvassa. The Tender Fees will be accepted only in form of DD of any Nationalized or Scheduled Bank of India payable in Silvassa.

**5. Preparation of Bids and Submission of Bid Online by the Bidders:**

The Bidders have to prepare their Bids online, as per the time schedule mentioned in the key dates of the Notice Inviting Tenders after signing of the same by the Digital Signature of their authorized representative.

**6. Submission of Earnest Money Deposit:**

The Bidders shall submit their Earnest Money Deposit as usual in a physically sealed Earnest Money Deposit Envelope and the same should reach the concerned Office as stated in the Notice Inviting Tender by Register Post.

The Bidders have to upload scanned copy of Earnest Money Deposit instrument along with the reference details.

**7. Opening of Tenders:**

The concerned Department Official receiving the tenders or his duly authorized Officer shall first open the online Preliminary (Tender Fee & Earnest Money Deposit) Envelope of all the Bidders and verify the scanned copy of the Tender Fee and Earnest Money Deposit uploaded by the Bidders. He/She shall check for the validity of Earnest Money Deposit as required. In case, the requirements are incomplete, the commercial and other Envelopes of the concerned Bidders received online shall not be opened.

**8.**

| Key-dates | Date | Time |
|---|---|---|
| Bid document downloading Start Date | 26/11/2014 | - |
| Bid document downloading End Date | 16/12/2014 | 12.00 Hrs. |
| Last Date & Time for receipt of Bid | 16/12/2014 | 14.00 Hrs. |
| Preliminary Stage Bid Opening Date | 16/12/2014 | 15.00 Hrs. |
| Technical Stage Bid Opening Date | 16/12/2014 | 15.30 Hrs. |
| Commercial Stage Bid Opening Date | 18/12/2014 | 11.00 Hrs. |

# SECTION I :

# INVITATION FOR BIDS (IFB)

## SECTION I : INVITATION FOR BIDS (IFB)

1. For the requirement of The Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli, Silvassa now invites online bids from eligible bidders for Renovation of Operation Theatre Complex.

2. Bids may be submitted by the primary manufacturer or their authorized distributor or importer for and on behalf of the primary manufacturer provided the bid is accompanied by a duly notarized letter of authority from the primary manufacturer.

| | | |
|---|---|---|
| a. | Price of bidding document (Non refundable DD) | : **₹.5000/-** |
| b. | Last date and time for submission of bid | : As per online key dates |
| c. | Date and time of opening of Bid | : As per online key dates |
| d. | Address of communication | : Office of Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli, Silvassa |

3. Bidders may offer their bid online for Renovation of Operation Theatre Complex.
4. Bid and bid security as specified in the bid document must be delivered as per prescribed format for online and physical submission specified in notice and tender document.
5. **Price bid should be submitted online only. In case price bid is submitted manually bid will be out through rejected.** Cost of tender form **₹.5000/-** (in the form of DD) should be submitted in separate Envelope marked "Tender Fee". EMD & Technical Bid will be submitted separately in separate sealed Envelopes. Technical Bid will be evaluated as per specification and National Competitive Bidding terms and conditions by the Technical Committee. Those bidders who qualify for the technical bid will be invited for demonstration whereable applicable of equipment on the day, date & place specified by the Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli Silvassa. The bidders will have to demonstrate the equipments on the date, day and place specified. Thereafter, Price Bid will be opened online only for those bidders whose bid will be found technically responsive after demonstration. Opening of date of price bid will be communicated online at https://dnh.procure.com hence bidder are advised to visit web portal on day to day basis.
6. In the event of the date specified for bid receipt/opening being declared as closed / holiday, due date for receipt/opening of bid will be post poned.
7. Supporting documents along with original EMD and cost of tender form has to be submitted by tenderer at office of the Medical Superintendent, Shri Vinoba Bhave Civil Hospital,Dadra & Nagar Haveli, Silvassa on or before the time & date of submission as mentioned above.
8. Time of Completion of work within 12 weeks from the date of allotment letter.

***Sd/-***
**Medical Superintendent**
Shri Vinoba Bhave Civil Hospital
Dadra & Nagar Haveli
Silvassa.

# SECTION II :

# INSTRUCTIONS TO BIDDER (ITB)

## SECTION II: INSTRUCTIONS TO BIDDER

## TABLE OF CLAUSES


| Clause No. | Topic Number | Page No. | Clause No. | Topic Number | Page No. |
|---|---|---|---|---|---|
| | A. **Introduction** | | | **D. Submission of Bids** | |
| 1. | Scope of work | 10 | 17 | Bid stages | 16 |
| 2. | Eligible Bidders | 10 | 18 | Deadline for Submission of Bids | 19 |
| 3. | Eligible Goods and Services | 10 | 19 | Late Bids | 19 |
| 4. | Cost of Bidding | 10 | 20 | Modification and withdrawal of bids | 19 |
| | **B. Bidding Documents** | | | **E. Bid opening and evaluation of Bids** | |
| 5. | Contents of Bidding Documents | 10 | 21 | Opening of Bids by the Authority | 20 |
| 6. | Clarification of Bidding Documents | 11 | 22 | Clarification of Bids | 20 |
| 7. | Amendment of Bidding Documents | 11 | 23 | Preliminary Examination | 21 |
| | **C. Preparation of Bids** | | 24 | Evaluation and Comparison of Bids | 21 |
| 8. | Language of Bid | 12 | 25 | Contacting the Authority | 21 |
| 9. | Documents Comprising the Bid | 12 | | **F. Award of Contract** | |
| 10. | Bid Form | 12 | 26 | Post qualification | 21 |
| 11. | Bid Prices | 12 | 27 | Award Criteria | 22 |
| 12. | Bid Currencies | 13 | 28 | Authority's Right to Accept any Bid and to Reject any or all bids | 22 |
| 13. | Documents establishing Bidder's Eligibility and Qualifications | 14 | 29 | Notification of Contract | 22 |
| 14. | Documents establishing Good eligibility and conformity to Bidding Documents | 15 | 30 | Signing of Contract | 22 |
| 15. | Bid Security | 15 | 31 | Performance Security & Inspection Charges | 22 |
| 16. | Period of Validity of Bids | 16 | 32 | Placement of Supply Order | 22 |
| | | | 33 | Corrupt or Fraudulent Practices | 23 |

## A. Introduction

**1. Scope of Work**

The Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Silvassa requires Renovation of Operation Theatre Complex. Bid is issued for Renovation of Operation Theatre Complex at competitive rates. After finalization of the bid, the contract will be awarded to successful bidders for supply of the items, during one year or till further order on rate contract basis on approved rates. Renovation of Operation Theatre Complex to be supplied & installed at Shri Vinoba Bhave Civil Hospital, Silvassa. Detailed Scope of Work can be seen on Annexure XIII

**2. Eligible Bidders**

a) This invitation for Bids is open to all eligible bidders
b) Government owned enterprises in the Authority's country may participate only if they are legally and financially autonomous, if they operate under commercial law and if they are not a dependent agency of the Authority.
c) The tenderers shall clarify/state whether he/they are manufacturer, accredited agent or sole representative indicating principal's name & address. The offers of firms who are not manufacturer or direct authorized agent will be summarily rejected. Sub-distributors will not be accepted.

**3. Eligible Goods and Services**

a) All goods and ancillary services to be supplied under the Contract shall specify their country of origin.
b) For purposes of this clause, "origin" means the place where the goods are mined, grown, or produced or from which the ancillary services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.
c) The origin of goods and services is distinct from the nationality of the Bidder.

**4. Cost of Bidding**

The Bidder shall bear all costs associated with the preparation and submission of its bid, and **Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli, Silvassa** hereinafter referred to as "**The Authority**" will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

## B. The Bidding Documents

**5. Contents of Bidding Documents**

a) The goods required, bidding procedures and contract terms are prescribed in the Bidding Documents. In addition to the Invitation for Bids, the Bidding Documents include:

i. Instructions to Bidders (ITB);
ii. General Conditions of Contract (GCC);
iii. Special Conditions of Contact (SCC);
iv. Bid Form;
v. Annexure-I (Sales Tax Clearance Certificate);

vi. Annexure-II (Manufacturer Authorization Form);
vii. Annexure-III (Declaration / Undertaking Form);
viii. Annexure-IV (Proforma for Performance Statement);
ix. Annexure-V (Annual Turnover Statement);
x. Annexure-VI (Specifications of required equipments for MODULAR OPERATION THEATRE);
xi. Annexure-VII (Performance Security Form);
xii. Annexure-VIII (Contract Agreement Form);
xiii. Annexure-IX (Details of Manufacturing Unit);
xiv. Annexure-X (Price Schedule); (should be quoted online only)
xv. Annexure-XI (Price Schedule for AMC (without spare parts) / CMC (include free labour, repair, manpower, other services & spare parts); and
xvi. Annexure-XII (Detail of Service Centre in Dadra & Nagar Haveli /Gujarat / Maharashtra)
xvii. Annexure-XIII (Scope of Work)
xviii. Checklist

b) The Bidder is expected to examine all instructions, forms, terms, specifications and annexure in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in rejection of its bid.
c) The biding document is not transferable**.**

**6. Clarification of Bidding Documents**

a) If wishes, a prospective Bidder requiring any clarification of the Bidding Documents shall contact the Tender Contracting Authority in writing at the Authority's mailing address indicated in the invitation for Bids. The Authority will respond in writing to any request for clarification of the Bidding Documents, which it receives not later than 15 days prior to the deadline fixed for submission of Bids and prescribed by the Authority. Any correspondence with Authority seeking any clarification regarding any matter contained herein shall not compel the Authority to suspend the implementation of provision given hereunder or shall not mean a promise to change any provision in this tender document.

**7. Amendment of Bidding Documents**

a) At any time prior to the deadline fixed for submission of bids, the Authority may, for any justifiable reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.
b) Any addendum issued shall be part of Bidding Documents and all the prospective bidders will be notified of the amendment by post or publication, and will be binding on them. The same shall be uploaded on the designated website.
c) In order to allow reasonable time to prospective bidders in which to take the amendment into account in preparing their bids or for any other reason, the Authority at its discretion, may extend the deadline for the submission of bids.

## C. Preparation of Bids

**8. Language of Bid**

The Bid prepared by the Bidder, as well as all correspondence and documents, printed literature and leaflets relating to the bid exchanged by the Bidder and the Authority shall be written in English / Hindi language.

**9. Documents comprising the Bid**

The bid prepared by the Bidder shall comprise the following components:

a. A Bid Form and Price Schedule completed in accordance with Clause 10, 11 and 12; **Price bid form should be filled online only. Technical Bid Envelope, EMD and cost of tender form instruments should be uploaded online.**
b. Documentary evidence established in accordance with Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
c. Documentary evidence established in accordance with Clause 14 that the goods and services to be supplied by the Bidder are eligible goods and services and conform to the Bidding Documents; and
d. Bid Security furnished in accordance with Clause 15

**10. Bid Form**

The Bidder shall complete the Bid Form and shall also submit a hard copy thereof. The signing of Bid Form shall commit the Bidder to supply the ordered goods to the purchaser within 120 days of placing such order.

**11. Bid Prices**

a) Bid has been called for the equipments/machines given in the specification in Technical Annexure VI. The bidder should quote the price online only for the equipments/machine offered for. The specifications of the equipments/machines should be brand new unit as per details given in Annexure-VI. Any variation found will result in the rejection of the tender. In any case if price bid submitted manually or in CD than tender will be rejected.
b) Prices (inclusive of Excise Duty / Custom Duty, transportation, packing, insurance, installation, loading-unloading, warranty, service charge, inspection, and any incidental charges, but exclusive of CST/VAT) should be quoted for each of the required equipments etc., separately on door delivery basis according to the unit ordered. Tender for the supply of equipments etc. with cross conditions like “AT CURRENT MARKET RATES” shall not be accepted. Handling, clearing, transport charges etc. will not be paid. The delivery should be made as stipulated in the supply order placed with successful bidders. Conditional tenders will not be accepted.(Please note that Price Bid/ Financial Proposal is mandate to be online only if submitted in hard copy or in CD bid will be rejected. )
c) The price quoted by the bidders shall not, in any case exceed the controlled price, if any, fixed by the Central/State Government and the Maximum Retail Price (MRP). Authority at its discretion, will exercise, the right to revise the price at any stage, on lower side so as to confirm to the controlled price or MRP as the case may be. This discretion will be exercised without prejudice to any other action that may be taken against the bidder.

d) To ensure sustained supply without any interruption the Authority, reserves the right to split orders for supplying the requirements among more than one bidder, provided the prices and other conditions of supply are equal.
e) The prices quoted and accepted will be binding on the bidder for the stipulated period (as per para I of introduction) and any increase in the price will not be entertained till the completion of this tender period or till further orders. Cross Conditions such as "SUBJECT TO AVAILABILITY" "SUPPLIES WILL BE MADE AS AND WHEN SUPPLIES ARE RECEIVED" etc., will not be considered under any circumstances and the tenders of those who have given such conditions shall be treated as incomplete and Tender will be summarily rejected.
f) The price quoted should be inclusive of service tax (as per Govt. rules) on inspection and testing charges, which will be realized in advance from the bidders.

**12. Bid Currencies**

Prices shall be quoted in **Indian Rupees.**

**13. Documents establishing Bidder's eligibility and qualifications**

a) Pursuant to Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the bidder's eligibility to bid and its qualifications to perform the Contract if its bid is accepted. The documentary evidence of the Bidder's eligibility to bid shall establish to the Authority's satisfaction
b) The supplier would be responsible for the performance of all inspections and test requirements specified.
c) The supplier may use their own or any other facilities suitable for the pre-delivery and acceptance inspections unless disapproved by the purchaser.
d) The purchaser reserves the right to perform any of the inspections and tests set forth in the specification where such inspections are deemed necessary to assure supplies and service conform to the specification and contract including access to an independent test lab of purchaser's choice to fulfil all of the requirements for testing, inspection and certification.
e) Quality assurance operations performed by the supplier will be subject to purchaser verification at unscheduled intervals. Verification will consist of observation of the operations to determine that proper practices, methods, and procedures are being properly applied. Failure of the supplier to promptly correct observed deficiencies shall be cause for suspension of acceptance of the supplies until conformance to specification criteria has been demonstrated.
f) Quality conformance inspection applies to all the supplies offered for acceptance under the contract.
g) Quality conformance inspection shall consist of:
    - Workmanship inspection
    - Operational checks to cover all controls, electrical systems, and devices, doors, cabinets, accessories etc. All controls and mechanisms shall function and operate as intended at the time of delivery.
h) The bidder should have facility of after sales support for onsite support to the installation. The installation should be executed by the respective principal manufacturer of each brand and the undertaking for the same should be submitted by the bidder.
i) The bidder should be authorized distributor / OEM supplier for the manufacturers, whose products are being offered in the bid. Distributorship Agreement / Authorization Letter / OEM Agreement to this effect needs to be furnished with the tender bid.
j) The bidder should have experience of having offered similar products/services in hospitals directly. The bidder should have completed minimum 3 projects of either

Modular OT, Medical Gas Pipeline System or Integration. Each Project should have minimum value of 4 crores.

k) Authorized Dealers participating as bidder should have the principal company complying with the experience and the relevant documents (balance sheet and financials) enclosed to this effect with the tender documents.

l) Complete details of model & make should be mentioned for all equipments being offered.

m) Copies of all the relevant test certificates and certificates of compliance of the offered product to specific standards should be enclosed with the bid document.

n) The purchaser at any point of time during the tender evaluation may ask for the physical demonstration of the offered products in the form samples and if not possible then demonstration at any other reputed installed site.

o) 'TIMELY DELIVERIES' are the essence of this tender. Bidder / its sister concerns / companies where its Promoters / Directors either directly or indirectly are involved, should not have ever been involved in any tender, where their technical and price bids were selected, but they could not deliver the products / services offered by them and purchaser / indenter / customer had to look for alternate sources.

p) Bidder / its sister concerns / companies where its Promoters / Directors either directly or indirectly are involved, should not have ever been blacklisted in tender / supplies by any state/Central Govt . Bidder should submit affidavit in this regard. The bidder should provide accurate information of litigation or arbitration resulting from contracts completed or under execution by him over the last ten years. False affidavit would lead to blacklisting and termination of the contract at any stage. In such cases all the losses that will arise out of this issue will be recovered from the Tenderer / Contractor and he will not have any defence for the same. In case of bidder / principal is involved / penalized under any investigation of CVC or any State/Central Govt. Commission in relation to the similar work project issue; the bid will be disqualified.

q) The documentary evidence of the Bidder's qualifications to perform the Contract if its bid is accepted, shall establish to the Authority's satisfactions:

   i. Bids may be submitted by the primary manufacturer or their authorized distributor or importer for and on behalf of the primary manufacturer provided the bid is accompanied by a duly notarized letter of authority from the primary manufacturer. In case of authorized distributor the bidder should have minimum three years association with manufacturer. (as per authorization form given in Annexure II).

   ii. Documentary evidence for the Registration of the company with details of the Name, Address, Telephone Number, Fax Number, e-mail address of the firm and of the Managing Director / Partners / Proprietor and Name, Address, Telephone number, fax, e-mail of primary manufacturer.

   iii. The bidder shall upload printed original catalogues of primary manufacturer and any other technical documents like data sheet or operational manual of equipment with highlighting the features in portal along with the other documents. In catalogue, the quoted product no. and name should be highlighted and item code should also be written with catalogue, against which that product is quoted. These documents are also to be submitted in physical form before due date along with Bid security. Specification of equipments supplied should match the specification in catalogue.

   iv. The instruments such as power of attorney, resolution of board etc., authorizing an officer/person of the bidder should be submitted with the tender and such Authorized officer/person of the bidder should sign the tender documents.

   v. Authorization letter nominating a responsible person of the bidder to transact the business with the Authority.

   vi. The bidder / Manufacturer should have at least one service centre in Gujarat/Maharashtra, with a team of trained service engineer/technical staff the details in this regard as per Annexure-XII shall be submitted.

vii. The bidder shall submit the specification's compliance / deviation report duly filled and signed which clearly bring out the deviation from the specification if any given in Annexure-VI.

viii. Sales Tax/VAT/CST Clearance certificate, as on 31.03.2011 / 31.03.2012 / 31.03.2013 (as per form attached in Annexure-I).

ix. Details of Manufacturing Unit I Annexure – IX. The details containing the name and address of the premises where the items quoted are actually manufactured.

x. Documents, if any, to show that the manufacturing unit/importer has been recognized, by WHO, UNICEF, ISO or any other Certificate etc.

xi. The bidder shall furnish a notarized affidavit in the format given in Annexure-III declaring that the bidder accepts all terms and conditions of the tender.

xii. Annual turnover (i.e. turnover for each year separately) of bidder in the last three financial years shall not be less than 100% cost of project. Annual turnover statement for 3 years submitted in the format given in Annexure-V certified by the Auditor/CA.

xiii. Experience certificates / PO copies of Govt. Hosp. / Semi Govt. Hosp. / Corporate Hosp. / Private Hosp. should be submitted. For Imported products international experience will also be taken in to consideration.

xiv. In case of imported equipment IEC certificate of manufacturer shall be submitted.

xv. The bidder should also submit national and international quality certificates like ISI/CE/C" mark/IEC standard or equivalent certificate of quoted product, if available.

xvi. Leaflets, literatures, should invariably be attached for ready reference clearly marking the item code no.

xvii. Concern / Company have not been debarred / blacklisted either by Authority or by any State Government or Central Government Organization for the quoted product or as a whole. Affidavit to this effect shall be submitted by the concern / company.

xviii. All documents should be self attested and stamped.

xix. No Bidder / Tenderer should submit two or more authorization letters from the manufacturer for the same projects / tender.

xx. The principal company should be ISO 9001, 13485 & CE certified.

**14. Documents establishing Goods Eligibility and Conformity to Bidding Documents**

Pursuant to Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the Bidding Documents of all goods and services, which the Bidder proposes to supply under the Contract.

**15. Bid Security**

a) Pursuant to Clause 9, the Bidder shall furnish, as part of its bid, the bid security which shall be **₹.33,25,000/-** No concession / exemption shall be allowed. F.D.R./Bank Guarantee should be attached. Scan Copy of same instrument should be uploaded online too.

b) The bid security is required to protect the Authority against risk of Bidder's business conduct which would warrant the security's forfeiture, pursuant to clause 15.g

c) The bid security shall be in Indian Rupees and shall be in form of Fixed Deposit/Bank Guarantee for 12 months in favour of the Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Silvassa.

d) Any bid not secured in accordance with Clause 15.a and 15.c above will be rejected by the Authority as non-responsive, pursuant to Clause 23

e) Unsuccessful Bidder's bid security will be discharged / returned as promptly as possible upon the successful Bidders signing the Contract, pursuant to Clause 31 or after the expiration of the period of bid validity prescribed by the Authority pursuant to clause 16 No interest is payable on bid security.

f) The successful Bidder's bid security will be discharged upon the Bidders signing the Contract, pursuant to Clause 30, and furnishing the performance security, pursuant to Clause 31. No interest is payable on bid security.

g) **The bid security may be forfeited**:

a. If a bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form;

b. In case of a successful Bidder, if the Bidder fails:
(i) to sign the Contract in accordance with Clause 30; or
(ii) to furnish performance security and Inspection Charges in accordance with Clause 31.

**16 Period of Validity of Bids**

a) Quoted Prices of Bids shall be valid for 180 (One hundred eighty) days after the date of bid opening prescribed by the Authority pursuant to clause 21. A bid valid for a shorter period shall be rejected by the Authority as non-responsive. This price on acceptance shall remain fixed till contract period or till further order.

b) In exceptional circumstances, the Authority may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. A Bidder may refuse the request without forfeiting its bid security. A bidder granting the request will not be required nor permitted to modify its bid.

c) No bid may be modified subsequent to the deadline for submission of Bids.

d) No Bid may be withdrawn in the interval between the deadline for the submission of Bids and expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the Bidders forfeiture of its bid security pursuant to clause 15.g

## D. Submission of Bids

**17 Bid Stages**

Bid should be submitted in following system and should furnish the following documents failing which their bid shall not be accepted:-

**Envelope : Tender fee and E.M.D.**

**(Tender fee in the form of D.D. only)**

The Bidders shall submit their Tender fee **₹.5000/-** in form of a Demand Draft in the name of The Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Silvassa" payble at Silvassa in a separate physically sealed Envelope clearly marked **"Tender Fee"** and the same should reach the concerned office as stated in the Notice Inviting Tender by post. The Bidders have to upload scanned copy of the Tender fee in form of Demand Draft instrument along with the reference details.

**(E.M.D. in the form of F.D.R./Bank Guarantee only)**

The Bidders shall submit their Earnest Money Deposit as usual in a separate physically sealed Envelope and the same should reach the concerned office as stated in the Notice Inviting Tender by post. The Bidders have to upload scanned copy of Earnest Money Deposit instrument along with the reference details.

Fixed Deposit/Bank Guarantee for 12 Months as bid security which shall be **₹.33,25,000/-** tendered for as E.M.D. issued by Nationalized bank in the name of the Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Silvassa (refundable). (Any other example D.D. / Cheque will not be accepted).

**Without submission of E.M.D. the tender will be summarily rejected as per rules.**
**In no case the tender cost fee should be mixed with E.M.D. amount. Fee cost is not refundable.**

**"TENDER FOR RENOVATION OF OPERATION THEATRE COMPLEX OF SHRI VBCH"** ***All the envelopes A, B, C, must be Wax sealed using sealing Wax and official seal, sealed cello taped, moisture free and strong.***

i. **Reference No. of the tender _____**

ii. **Tender regarding _____**

iii. **Due date of submission of tender form _____**

iv. **Due date for opening of the tender _____**

v. **Name of the firm _____**

**Technical Bid to be submitted online only**

(ii) Technical bid should be submitted online with certified (self) copy for the quoted equipments etc. should be signed and stamped on each page. (ANNEXURE-VI). The bidder shall upload the specification's compliance / deviation report duly filled and signed which clearly bring out the deviation from the specification if any given in Annexure-VI.
(iii) List of name and address where supply of the quoted equipments has been made.
(iv) Literature of original catalogue of the product attached for reference.
(v) Guarantee / warrantee.
(vi) Sales Tax/VAT/CST Clearance certificate, as on 31.03.2011, 31.03.12, 31.03.13 (as per form attached in Annexure-I).
(vii) Annexure-II (Manufacturer Authorization Form)
(viii) Annexure-III (Undertaking Form / Declaration Form)
(ix) Annexure-IV (User certificates for the last 3 years). Bidder should submit details of installation in Annexure IV.
(x) Annexure-V (Annual Turnover Statement)
(xi) Annexure – IX (Details of Manufacturing Unit)
(xii) Annexure – XII (Details of Service Centre in Gujarat/Maharashtra/DNH)
(xiii) Registration Certificate of the company with details of the Name, Address, Telephone Number, Fax Number, e-mail address of the firm and of the Managing Director / Partners / Proprietor.

(xiv) Authorization letter from manufacturer authorizing a person to transact a business with the Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli, Silvassa.

(xv) The instruments such as power of attorney, resolution of board etc., authorizing an officer/person of the bidder should be submitted with the tender and such Authorized officer/person of the bidder should sign the tender documents

(xvi) Market Standing Certificate issued by the Licensing Authority as a Manufacturer / distributor for each equipment quoted for the last 3 years. In case of direct importer, evidence for importing the said items for the last three years.

(xvii) The bidder should also submit national & international quality certificates like ISI/CE and ISO-9001, 13485 mark and IEC standard or equivalent certificate of quoted product,

(xviii) Original price Bid and other Form duly digitally signed online by authorized signatory and physical document as per Section V, duly sealed and signed by the bidder on each page for acceptance of Terms and Conditions.

(xix) Bidders should have the registration under Commercial Tax Authority, Registration should be attached.

(xx) Affidavit that Concern / Company have not been debarred / blacklisted either by Authority or by any State Government or Central Government Organization. Affidavit to this effect shall be submitted by the concern / company. Affidavit that the firm has no vigilance case / CBI case pending against him / supplier.

(xxi) Affidavit that the firm has not supplied the same item at the lower rate than quoted in the tender to any Govt. / Semi Govt. or any other organization.

(xxii) Certificate for being in business or more than 3 years.

(xxiii) Certificate for sole ownership / partnership and establishment relationship.

(xxiv) Statement of good financial standing from bankers.

(xxv) The printed original catalogues of primary manufacturer and any other technical documents like data sheet or operational manual of equipment with highlighting the features in portal along with the other documents. In catalogue, the quoted product no. and name should be highlighted, against which that product is quoted. These documents are also to be submitted in physical form before due date along with Bid security.

(xxvi) In case of imported equipment IEC certificate of manufacturer shall be submitted.

(xxvii) A separate price list of all spares and accessories (including minor) required for maintenance and repairs in future after guarantee / warrantee period. Should be submitted in separate envelope with technical bid with a word " Do not open Price for Spare" Marked as COVER - C

(xxviii) Recurring expenditure on equipments.

**NOTE : TENDER SUBMITTED WITHOUT FOLLOWING THE ABOVE PROCEDURES WILL BE SUMMARILY REJECTED.**

## PRICE BID

The Bidder should furnish the following:-

i) The rate quoted online only as per unit (landed price) in Annexure-X (Suggested sample proforma of price schedule in this tender document is for inspection and not for physical submission or in CD) shall be inclusive of Excise Duty / Custom Duty,

VAT, freight, packing, insurance, inspection & testing charges etc. and should be F.O.R. point of installation on turnkey basis.

**ii) The rate quoted in column 6 of Annexure-X should be filled online (Suggested sample proforma of price schedule in this tender document is for inspection and not for physical submission or in CD) should be for entire turnkey project and given specification. The Bidder is not permitted to change / alter specification or unit size given in the Annexure-XIV.**

iii) Bidder has to quote rates online only strictly for the items which are mentioned in the tender.

iv) Rates quoted for items other than mentioned in the tender form then that particular item will not be entertained.

v) The bidder shall also quote charges for Annual Maintenance Contract (without spare parts) and Comprehensive Maintenance Contract (include free labour, one technical assistance posted in Shri VBCH round the clock for a period of one year, repair, other services & spare parts) for the next five years after the expiry of five years warranty/guarantee period in Annexure-XI. CMC price will be taken in to consideration while comparing commercial bid.

vi) The bidder should quote equipment's which will have guarantee / warranty of at least 5 years, equipment's which have less than 5 years warranty will not be entertained and so should not be quoted.

vii) Bidder should show recurring expenditure of each equipment separately.

viii) The price bid should be submitted online as prescribed in online form only. In case price bid / financial bid is submitted manually or in CD than bid will be rejected.

**18 Deadline for Submission of Bids**

a) Bids will not be accepted after the time and date specified in the invitation for Bids (Section I).

b) The Authority may, as its discretion, extend the deadline for submission of bids by amending the Bid Documents in accordance with Clause 7, in which case all right and obligations of the Authority and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

c) The Authority will not be responsible for any delay or non-receipt of tender documents.

**19 Late Bids**

No Bid can be submitted after the last date and time of submission of bid.

**20 Modification and withdrawal of Bids**

a) The Bidder may modify or withdraw their bid before Last Date and time of submitting bid hash online, before completing Submit Bid Hash Online stage. Once the said stage shows to be completed, no modifications can be made by bidder.

b) No bid may be modified subsequent to the deadline fixed for submission of bids hash online.

c) No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form or any extension thereof. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to Clause 15.g.

## E. Bid Opening and Evaluation of Bids

### 21 Opening of Bids by the Authority

Opening of Bid process:

a) Bid will be opened online as per key schedule on the day, date & place specified by Authority.
b) All bidders are entitled to be present at the date, time & place for opening of Bids.
c) Only one representative of each Bidder is entitled to remain present at the time of bid opening. Bidder's representative who is present shall sign a register evidencing his/her attendance. In the event of the specified date of Bid opening being declared a holiday for the Authority or the Authority is unavailable on that day due to some unexceptional circumstances, the Bids shall be opened at the appointed time and location on the next working day. Such representative must be present with original authority letter issued by the bidder with ID proof in support thereof.
d) Opening of bid will be sequential process.
e) Bids will be opened in the presence of Bidder's representatives who choose to attend on the specified date and time fixed for opening the bid. Envelope containing Tender fees and EMD as per tender conditions will only be deemed qualified for opening of technical bid online.
f) Technical Bid will be evaluated as per specification and Tender terms and conditions by the Technical Committee. Those bidders who qualify for the technical bid will be invited for demonstration of equipment on the day, date & place specified by The Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Silvassa. The bidders will have to demonstrate the equipments on the date, day and place specified, failing which their bid will be rejected.
g) A team of Medical Specialists, Biomedical Engineer and other staff shall be constituted under the Chairmanship of Medical Superintendent to inspect the similar kind of work executed by the bidder.
h) Thereafter, Price Bid will be opened online only for those bidders whose bid will be found technically responsive after demonstration. Opening of date of price bid will be communicated online only https://dnh.nprocure.com those who qualify and will be displayed on the specified website.
i) Bidders who were found eligible on satisfying the criteria for technical evaluation and inspection by the technical committee can only be invited to be present at the date and time for opening of Price Bid of the tender.

### 22 Clarification of Bids

During evaluation of bids, the Authority may, at its discretion, ask the Bidder for clarification of its Bid. Any clarification submitted by a bidder in respect to its bid and that is not in response to a request by the Authority shall not be considered. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted except to confirm the correction of arithmetic errors discovered by the Authority in the evaluation of the bids.

**23 Preliminary Examination**

a) The Authority will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether all documents are there, whether the documents have been properly signed, and whether the bids are generally in order.

b) The Authority may waive any minor informality or non-conformity or irregularity or omissions in a bid which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any Bidder.

c) Prior to the detailed evaluation, pursuant to Clause 24, the Authority will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the documents, terms, conditions and specifications of the bidding documents without material deviations. The Authorities determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

d) If a bid is substantially responsive, the Authority may request that the bidder submit the necessary information or documentation, within a reasonable period of time to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omissions shall not be related to any aspect of the price of the bid. Failure of the bidder to comply with the request within the stipulated time may result in the rejection of its bid.

e) If a bid determined as not substantially responsive, it will be rejected by the Authority and may not subsequently be made responsive by the bidder by correction of the non-conformity.

**24 Evaluation and Comparison of Bids**

The Authority will evaluate and compare the bids previously determined to be substantially responsive, pursuant to Clause 23. Bids will be evaluated with reference to various criteria as specified in bid document and one of such criteria is that the lowest rate offered for the entire turnkey project as mentioned in Scope of Work in Annexure XIII

**25 Contacting the Authority**

Subject to Clause 22, no Bidder shall contact the Authority on any matter relating to its bid, from the time of the bid opening to the time Contract is awarded.

Any effort by a Bidder to influence the Authority in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid. If the bidder wishes to bring additional information to the notice of the Authority, it should do so in writing.

## F. Award of Contract

**26 Post Qualification**

a) Based on the qualification criteria listed in Clause 13, the Authority will determine to its satisfaction whether the Bidder selected as having submitted the lowest evaluated responsive bid is qualified to satisfactorily perform the Contract.

b) The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder. Pursuant to ITB Clause 13, as well as such other information as the Authority deems necessary and appropriate.

c) The Authority shall ask for demonstration whereable applicable of the quoted Modular Operation Theatre equipments and Medical Gas Pipeline. The cost of demonstration shall be born by the bidder. Day, date & place of demonstration shall be decided by Authority.

d) An affirmative determination will be prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's bid in which event the Authority will proceed to the next bid to make a similar determination of that Bidder's capabilities to perform the contract satisfactorily.
e) The tenderers shall demonstrate whereable applicable the quoted model of the equipments during the technical evaluation on the day, date & place specified.

**27 Award Criteria**

Subject to Clause 28 The Authority will award contract to the successful bidders on lowest evaluated prices or the price approved by the Purchase Committee.

**28 Authority's Right to Accept any Bid and to Reject any or all bids**

The Authority reserves the right to accept or reject the tender for the supply of all items of equipments or for any one or more of the items of equipments tendered for in a tender without assigning any reason, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Authority's action.

**29 Notification of the Contract**

a) Prior to the expiration of the period of bid validity, the Authority will notify the successful Bidder in writing by registered letter or fax or e-mail, that its bid has been accepted.
b) The notification of Contract will constitute the formation of the Contract.
c) Upon the successful Bidder's signed Rate Contract pursuant to Clause 30, the Authority will promptly notify each unsuccessful Bidder and will discharges its bid security, pursuant to Clause 15.
d) If, after notification of contract, a Bidder wishes to ascertain the grounds on which its bid was not selected, it should address its request to the Authority. The Authority will promptly respond in writing to the unsuccessful Bidder.

**30 Signing of Contract (Agreement)**

a) At the same time the Authority will inform to the successful Bidder that its bid has been accepted the Authority will send the Bidder the Contract Form provided in the bidding document incorporating all agreements between the parties.
b) Within 10 days of receipt of the Notification of Contract, the successful Bidder shall sign and date the Contract on a non-judicial stamp paper of value of Rs.100/- (stamp duty to be paid by the Bidder) and return it to the Authority.
c) The validity of Rate Contract will be one year and may be extended for further period as agreed mutually unless revoked.

**31 Performance Security & Inspection Charges**

a) Within 15 days of the receipt of firm order from the Authority or the date specified by the purchaser, the successful Bidder shall furnish the performance security and inspection charges in accordance with the Clause 7 & 8 of General Conditions of Contract.
b) Failure of successful bidder to comply with the requirement of Clause 30 or Clause -31.a shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security/previously deposited performance security and disqualify the firm to participate in the tender for the next five years.

**32 Placement of Supply Order**

a) After finalization of the contract, the successful bidders may be asked to submit the delivery schedule as per requirement of the Purchaser. While placement of orders, the schedule given to the bidders, along with the other conditions stated at Clause 27 will be considered.

b) To ensure sustained supply without any interruption the Purchaser, reserves the right to extend delivery period of L-1 bidder. If he deemed fit to do so.

**33 Corrupt or Fraudulent Practices**

For the purpose of this provision, the terms set forth as follows:

(i) "Corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution, and

(ii) "Fraudulent practice" means a mis-presentation / hiding of facts in order to influence a procurement process or the execution of a contract to the detriment of the other bidders, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non competitive levels and to deprive the other bidders of the benefits of free and open competition;

(iii) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practice in competing for the contract in question.

(iv) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be allowed to participate, awarded a contract if at any time determines that the firm has engaged in corrupt or fraudulent practice in competing for, or in executing, a contract.

Furthermore, Bidders shall be aware of the provision stated in Clause 21.d of the General Conditions of contract.

# SECTION III:

# GENERAL CONDITIONS OF CONTRACT (GCC)

# SECTION III:
# GENERAL CONDITIONS OF CONTRACT (GCC)
# TABLE OF CLAUSES


| Clause Number | Topic | Page Number |
|---|---|---|
| 1. | Definitions | 26 |
| 2. | Applications | 26 |
| 3. | Country of Origin | 26 |
| 4. | Standards | 26 |
| 5. | Use of Contract documents and information | 27 |
| 6. | Patent Rights | 28 |
| 7. | Performance Security | 28 |
| 8. | Inspection and Tests | 28 |
| 9. | Packing | 29 |
| 10. | Delivery and Documents | 29 |
| 11. | Insurance | 29 |
| 12. | Transportation | 29 |
| 13. | Warranty | 30 |
| 14. | Payment | 31 |
| 15. | Prices | 31 |
| 16. | Change orders | 31 |
| 17. | Contract Amendments | 32 |
| 18. | Assignment | 32 |
| 19. | Delays in the Supplier's Performance | 32 |
| 20. | Liquidated Damages | 32 |
| 21. | Termination for Default | 32 |
| 22. | Force Majeure | 33 |
| 23. | Termination for insolvency | 34 |
| 24. | Termination for Convenience | 34 |
| 25. | Resolution of Disputes | 34 |
| 26. | Limitation of Liability | 34 |
| 27. | Governing Language | 35 |
| 28. | Applicable Law | 35 |
| 29. | Notices | 35 |
| 30. | Taxes and Duties | 35 |
| 31. | Fall Clause | 35 |
| 32. | Jurisdiction | 36 |

# General Conditions of Contract

## 1 Definitions

In this Contract, the following terms shall be interpreted as indicated:

(a) "Contract" means the agreement entered into between the Authority and the Supplier, as recorded in the Contract Forms signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein for supply of material in agreed time period.

(b) "Price" means the price payable to the Supplier for the full and proper performance of its contractual obligations.

(c) "Goods" means all the equipments etc., which the supplier is required to supply to the purchaser under the Contract.

(d) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance and any other incidental services, and other obligations of the Supplier covered under the Contract.

(e) "GCC" means the General Conditions of Contract contained in this section.

(f) "SCC" means the Special Conditions of Contract.

(g) "The Purchaser" means the Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Silvasa ( U.T.), as named in SCC.

(h) "The Purchaser's Country" is the country named in SCC.

(i) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.

(j) Chairman P.C. Means Chairnan Purchase Committee

(k) "Authority" means the Chairman, Purchase Committee.

(l) "The Project Site" where applicable, means the place or places named in SCC.

(m) "Day" means calendar day.

## 2 Applications

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

## 3 Country of Origin

a) All goods and services supplied under the Contract shall be specified their country of origin.

b) For purpose of this Clause "origin" means the place where the Goods are mined, grown or product, or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembling of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

c) The origin of Goods and Services is distinct from the nationality of the Supplier.

## 4 Standards

a) The Goods supplied under this Contract shall confirm to the standards mentioned in the Technical Specifications and when no applicable standard is mentioned, latest standards agreeable to Authority should be supplied.

b) Genuine Equipments For Renovation of Operation Theatre Complex must be supplied. Tenderers should indicate the source of supply i.e. name & address of the manufacturers from whom the items are to be imported.
c) While quoting the rates of Equipments for Renovation of Operation Theatre Complex as enclosed list, the name of the manufacturer must be mentioned otherwise the tender is liable to be rejected.
d) The rates of every item should be quoted from standard and well reputed firms / companies and they should be minimum possible.
e) For Equipments for Renovation of Operation Theatre Complex means should bear quality assurance certification like ISO 14644, VDI 2083, DIN 1946 and ISO 7396 – 1 or equivalent certificates.
f) Software and Hardware Upgradation – Free Digital Up-gradation of software (all update & upgrades) upto 5 years.
g) Voltage stabilizer & digital technology should be supplied with the equipments required it.
h) Technical specification of equipments / work mentioned is basic, however, equipments of higher specifications may be quoted at no extra cost.
i) No change in make/manufacturer will be allowed at the time of supply. Changes resulting out of technology upgradation of the same manufacturer can be permitted at no extra cost.
j) Circuit diagram with operator's and service manual must be enclosed along with the equipment.
k) The Bidders are not allowed to quote for equipments / components with less than desire specification. Deviation from specification on lower / negative side shall not be considered if at any time during evaluation / after supply of equipments / components are found below specification EMD / performance guarantee shall be forfeited and action will be taken for black listing.
l) Latest models which fulfills this tender's specifications must be quoted.
m) An affidavit of the manufacturer duly notarized on Non Judicial stamp paper must be enclosed to guarantee supply of all spare parts for 5 years beyond guarantee / warranty period must be enclosed. The manufacturer must submit an authorized price list of genuine spare parts / standard parts and must also mention in the above affidavit that they will ensure sending any revised price list in the event of award of contract which requires AMC / CMC.
n) Tenders of refurbished equipments / machineries will not be accepted. The bidder must give an affidavit on a duly notarized Non judicial stamp paper that the quoted equipment / machine is not refurbished.

**5 Use of Contract documents and information**

a) The supplier shall not, without the Authority's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Authority in connection therewith, to any person other than a person employed by the supplier in performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extent only as far as may be necessary, for purposes of such performance.
b) The Supplier shall not, without the Authority's prior written consent, make use of any document or information enumerated in GCC Clause 5.a except for the purposes of performing the Contract.
c) Any document, other than the Contract itself, enumerated in GCC Clause 5.a shall remain the property of the Authority and shall be returned (in all copies) to the

Authority on completion of the Supplier's performance under the contract if so required by the Authority.

**6 Patent Rights**

The Supplier shall indemnify the Authority against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

**7 Performance Security**

a) The supplier shall furnish performance security in the amount specified in SCC 2.a to the purchaser as specified in GCC 1 (g).
b) The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
c) The Performance Security shall be denominated in Indian Rupees and shall be in the form of F.D.R. / Bank Guarantee of Nationalized Bank located in India in the prescribed form provided in bidding document or another acceptable to the purchaser in favour of Purchaser till completion of warranty period.
d) The performance security will be discharged by the purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's satisfactory performance obligations, including warranty obligations, unless specified otherwise in SCC.

**8 Inspection and Tests**

If purchaser wishes:

The purchaser or its representative shall have the right to inspect and/or test the Goods to confirm their conformity to the contract. The Special Conditions of Contract and/or the Technical Specification shall specify what inspections and tests the purchaser requires and where they are to be conducted. The purchaser shall notify the Supplier in writing of the identity of any representatives retained for these purposes.

(i) The Supplier shall notify the purchaser or its representative at least 10 days prior to the date when Goods are available for inspection.
(ii) The Supplier will provide to the purchaser or its representative all reasonable facilities for the conduct of such inspections and tests at no additional cost to the purchaser. The Supplier may seek an independent quality test report for batch ready for shipment. The cost of such tests will be borne by the Supplier.
(iii) Where the Supplier contests the validity of the rejection by the purchaser or his representative, whether based on product or packing grounds, a sample drawn by the Inspection Authority will be forwarded for analysis to an independent technical inspection. The Finding, which will be promptly obtained, will be final and binding on both the parties. The cost of umpire analysis will be borne by the losing party.
(iv) The Purchaser's right to inspect, test and where necessary, reject the Goods after the Goods arrival in at Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the purchaser or its representative prior to the Goods shipment from the country of origin.
(v) Nothing in Clause 8 shall in any way release the supplier from any warranty or other obligations under this Contract.

**9 Packing**

a) The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate the remoteness of the Goods final destination and the absence of heavy handling facilities at all points in transit.

b) The packing marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the contract including additional requirements, if any, specified in SCC, Technical specification and in any subsequent instruction ordered by the Purchaser.

**10 Delivery and Documents**

a) The supply should be completed within 150 days from the date of supply order unless otherwise specified in the supply order. Purchaser will place order by fax &/or e-mail &/or speed post.

b) It shall be the responsibility of the Supplier to make good for any shortage/damage at the time of receipt at designated place.

c) The details of shipping and/or other documents to be furnished by the Supplier are specified in SCC.

d) The delivery of Equipments for Renovation of Operation Theatre Complex should be made at the point / place specified by the Purchaser in Purchase Order.

e) The successful bidders should strictly adhere to the following delivery schedule Supply, Installation & Commissioning on turn key basis should be effected within a fortnight from the date of supply and this clause should be strictly adhere to failing which necessary administrative action as deemed fit under rules will be taken against the defaulter.

f) Supply must be toto i.e. not in fraction.

**11 Insurance**

The Goods supplied under the contract shall be fully insured in Indian Rupees against the loss or damage incidental to manufacture, acquisition, transportation, storage, delivery, installation and test running in the manner specified in SCC.

**12 Transportation**

a) Where the Supplier is required under the Contract to transport the Goods to project site, including insurance as shall be specified in the Contract shall be arranged by the Supplier, and the related cost shall be included in the Price.

b) The loss or damage of material whatsoever, whether insured or not, during transit shall be made good by bidder free of charge, failing which the losses will be deducted from their bill / performance security.

c) Wharf age, demurrages etc. on account of incorrect or delayed dispatch of material or documents shall be the responsibility of the supplier and shall be recovered from his bill / performance security.

**13 Warranty**

a) The Bidder shall provide onsite warranty/guarantee of the equipment for the period of five years from the date of installation. Warranty will cover services, repairs, maintenance, and replacement of spare parts, broken / damaged / worn out spare parts and other services free of cost during the whole warranty period of five years. The warranty shall also include "on call service" which should not exceed 48 hours from the date of lodging of complaint. The purchaser shall have the right to get the work done at the cost of bidder's responsibility, if machine is not repaired within 48 hours.
b) The Purchaser shall promptly notify the Supplier in writing of any claims arising under the warranty.
c) Upon receipt of such notice, the Supplier shall, with all reasonable speed, replace the sub standard equipments, without cost to the Purchaser.
d) If the Supplier, having been notified, fails to remedy the defect(s) within seven days, the Purchaser may proceed to take such remedial actions as may be necessary, at the Supplier's risk and expense and will have right to impose penalty without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
e) The stores supplies shall be strictly in accordance with the Specifications / Standards and shall be of the best quality. The stores are demanded to carry the Supplier's own guarantee of the items by the consignee.
f) If at any time during/after the supply if equipment is not found as per specification, sub standard or refurbished the bidder shall replace defective equipment at his own cost, immediately, failing which the total amount is recoverable from him and he will be black listed.
g) UPTIME GUARANTEE: The firm should provide uptime guarantee of 95%.

**Downtime penalty Clause**:
During the Guarantee / Warranty period, the bidder shall maintain the equipment with 95% uptime. The bidder shall give a written commitment for 95% uptime of the equipment, calculated on annual basis with penalty equivalent to double the amount of daily cost (on total loss of revenue per day/running cost per day basis) of the unit for each day's delay in proper functioning of the unit beyond 5% downtime per annum.

The tenderer will be bound to get the equipments repaired within 48 hours of the receiving of the complaint from Shri VBCH failing which a penalty of "1% of the cost may be recovered from the bank guarantee before releasing the same after years.

**Guarantee / Warranty period**: The tenderers must quote for 5 years warranty from the date of completion of the satisfactory installation. The Warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected. Also the Bidders should submit their quote for subsequent 5 years AMC (without spare parts) / CMC (include free labour, one technical manpower round the clock for a period of one for technical assistance, repair, other services & spare parts). Failure to comply this condition will entail the rejection of the Bids. The price comparison shall be made taking into account on basic price and post warranty CMC.

**SPARE PARTS**: The bidder must take guarantee of availability of supply of spare parts upto 5 years beyond the warranty / guarantee period and must submit affidavit as per GCC clause 4.m. After Warranty period, if the machine has been discontinued by the manufacturer, either the spare parts must be made available with service or the bidder has to replace the unit at his own cost.

**TRAINING**: Training of equipments within the stipulated time should be done by the supplier at his cost. The time & place of training shall be stipulated by purchaser. Training should be of all Doctors, all Staff Nurses, Nursing Orderlies of OT Department and Engineering Technical persons of the Hospital.

The Tenderers should clearly indicate the name of the Manufacturers / country of origin, etc.
Local agents quoting on behalf of their foreign suppliers must attach authority letter in their favour. Successful tenderers will have to furnish performance Bank Guarantee for 5% contract value from any Nationalized Bank valid for the warranty period. The rates quoted for the Stores/Equipments, under the reference, by the supplier shall in no event exceed the lowest price at which the suppliers of the Stores / Equipments of identical description are made to any other person / organization / institution during the period and should attach an undertaking **(duly notarized)**. Equipment should be brand new & of latest technology along with digital technique wherever applicable.The Authority reserves the right to increase the accessories and their numbers, payment will be made only for ordered accessories.

## 14 Payment

The method and conditions of payment to be made to the Supplier under the contract shall be specified in the SCC.

The Supplier's request(s) for payment shall be made to the Purchaser in writing accompanied by an invoice describing, as appropriate, the Goods delivered and the service performed, and by documents, submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the contract.

Payments shall be made by the Purchaser after submission of the claim by the Supplier. All sincere efforts will be made for payment of due amount which has been submitted to the purchaser within 30 days unless the situation being out of control of the purchaser. Proforma invoice should also be submitted.

Payment shall be made in Indian Rupees.

No payment shall be made for rejected Stores. Rejected items must be removed by the supplier within two weeks of the date of rejection at their own cost and replace immediately. In case these are not removed these will be auctioned at the risk and responsibility of the suppliers without any notice.

Supply of equipments means – installation and commissioning and also test running at site. No separate charges will be paid separately on this account.

Payment will be made after complete delivery, installation, commissioning and successful test running at the site, due verification and subsequent satisfactory report of the user department.

## 15 Prices

a) Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.
b) Recurring expenditure of the machine / equipment should be mentioned.

## 16 Change orders

The Authority may at any time, by written order given to the Supplier pursuant to GCC Clause 29 make changes within the general scope of the Contract in any one or more of the following:

1. the method of shipping or packing, installation;

2. Any other terms & conditions in public interest.

If any such change causes an increase or decrease in the cost of, or the time required, for the Supplier's performance of any provision under the Contract, the cost price will remain same and no adjustments will be made however any change in delivery schedule can be agreed upon on mutual consent and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.

The Purchase Orders on approved rates will be placed by the Purchaser.

**17 Contract Amendments.**

Subject to GCC Clause 16, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by both the parties.

**18 Assignment**

The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

**19 Delays in the Supplier's Performance**

a) Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the Supply order.
b) If at any time during performance of the Contract, the Supplier should encounter conditions impeding timely delivery of the Goods and performance of the Service, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice the Purchaser shall evaluate the situation and may at its discretion extend the supplier's time for performance.
c) Except as provided under GCC Clause 22, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 20, unless an extension of time is agreed upon pursuant to GCC Clause 19.b without the application of liquidated damages.

**20 Liquidated Damages**

Subject to GCC Clause 22, if the Supplier fails to deliver any or all the Goods or to perform the services within the period(s) specified in the supply order, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed goods or unperformed services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 21.

**21 Termination for Default**

Contract may be terminated by the Rate Contract Authority if:

a. If the supplier fails to execute the supply within the stipulated time, the Purchaser is at liberty to make alternative purchase, in the event of making ALTERNATIVE PURCHASE, the supplier will be imposed penalty apart from the forfeiture of Performance Guarantee. The excess expenditure over and above contracted prices incurred by the Purchaser in making such purchases from any other sources or in the open market or

from any other supplier who has quoted higher rates and other losses sustained in the process, shall be recovered from the Performance Security or from any other money due and become due to the Supplier and in the event of such amount being insufficient, the balance will be recovered personally from the Supplier. The penalty would be as mentioned in the Liquidated Damages clause.

b. The order may be cancelled after expiry of delivery period as mentioned in the supply order and the supplier shall also suffer forfeiture of the Performance Security and shall invite other penal action like blacklisting / disqualification from participating in present and future tenders.
c. Authority will be at liberty to terminate by assigning justifiable reason thereof the contract either wholly or in part on one month notice. The Supplier will not be entitled for any compensation whatsoever in respect of such termination.
d. If the Supplier, in the judgment of the Authority has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

   For the purpose of this Clause.

   "**Corrupt practice**" means offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

   "**Fraudulent practice**" means a mis-presentation / hiding of facts in order to influence a procurement process or the execution of a contract to the detriment of the other bidders, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial noncompetitive levels and to deprive the other bidders of the benefits of free and open competition.

e. For infringement of the stipulations of the contract or for other justifiable reasons, the contract may be terminated by the Authority, and the supplier shall be liable for all losses sustained by the Authority, in consequence of the termination which may be recovered personally from the supplier or from his properties, as per rules.
f. Non performance of any of the contract provisions will disqualify a firm to participate in the tender for the next five years.
g. In all the above conditions, the decision of the Authority shall be final and binding.

## 22 Force Majeure

a) Not with standing the provision of GCC Clause 19, 20, 21, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, penalty or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
b) For purpose of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Authority either in its sovereign or contractual capacity, wars or revolution, fires, floods, epidemics, quarantine restrictions and freight embargoes.
c) If a Force Majeure situation arises, the Supplier shall promptly notify the Authority in writing with adequate proof of such conditions and the cause thereof. Unless otherwise directed by the Authority in writing the Supplier continue to perform its obligations under the Contract as far as it is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by Force Majeure event.

**23 Termination for insolvency**

The Authority may at any time terminate the contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Authority.

**24 Termination for Convenience**

a) The Authority, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Authority's convenience, the extent to which performance of the Supplier under the contract is terminated, and the date upon which such termination become effective.

b) The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Authority at the Contract terms and prices. For the remaining Goods, the Authority may elect:

   i. to have any portion completed and delivered at the Contract terms and prices; and / or

   ii. to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

**25 Resolution of Disputes**

a) The Authority and the Supplier for the rate contracts & purchaser and supplier for supply order, supply, delivery and payment and other issues shall make every effort to resolve amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the Contract.

b) If, after thirty (30) days from the commencement of such informal negotiations, the Authority and the Supplier & purchaser and the supplier have been unable to resolve, amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the SCC. These mechanisms may include, but are not limited to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and/or international arbitration.

   i. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the goods under the contract.

   ii. Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in SCC.

c) Notwithstanding any reference to arbitration herein the parties shall continue to perform their respective obligations under the contract unless they otherwise agree.

**26 Limitation of Liability**

Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6.

i. the supplier shall not be liable to the Authority, whether in contract, tort, or otherwise, for any indirect or consequential clause or damage, loss of use, loss of production or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the suppliers to pay liquidated damages to the Authority, and

ii. the aggregate liability of the supplier to the Authority, whether under the contract, in tort or otherwise, shall not exceed the total ordered price, provided that this limitations shall not apply to the cost of replacing sub-standard/defective goods.

**27 Governing Language**

The contract shall be written in English/Hindi language. Subject to GCC Clause 28, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

**28 Applicable Law**

The Contract shall be interpreted in accordance with the laws of the Union of India.

**29 Notices**

a) Any notices given by one party to the other, pursuant to this Contract, shall be sent to other party in writing, confirmed in writing to the other Party's address specified in SCC.

b) A notice shall be effective when delivered or on the notice's effective date, whichever is later.

**30 Taxes and Duties**

In case of any enhancement in Excise Duty due to notification of the Government after the date of submission of tenders and during the tender period, the quantum of additional excise duty so levied will be borne by the successful bidder, if the rates of excise duty prevailing at the time of tender, has been shown extra and actually paid by the supplier

Suppliers shall be entirely responsible for all taxes, duties license fees, VAT, octroi, road permits, etc. incurred until delivery of the contracted Goods to the Purchaser.

**31 Fall Clause**

a) Prices charged for supplies under Rate Contract by the supplier should in no event exceed the lowest prices at which he offers to sell or sells the stores of identical description to any other State Government / DGS & D/ Public Undertaking during the period of the contract.

b) If at any time during the period of contract, the price of tendered items is reduced or brought down by any law or Act of the Central of State government, the supplier shall be bound to inform Authority immediately about such reduction in the contracted prices, in case the supplier fails to notify or fails to agree for such reduction of rates, the Authority will revise the rates on lower side. If there is a price increase for any product after quoting the rates, the bidder will have to supply the item as per quoted rates. This office will not accept any higher rates after wards.

c) If at any time during the period of contract, the supplier quotes the sale price of such Equipments or sells such Equipments to any other State Govt. / DGS&D and Public Undertakings at a price lower than the price chargeable under the rate contract he shall forthwith notify such reduction to Authority and the prices payable under the rate contract for the Equipments supplied from the date of coming into force of such price stands correspondingly reduced as per above stipulation however reduction shall not apply to :-

i. Export by the supplier
ii. For all contracts entered into prior to the date of the tender or for any backlog of pending orders.

d) Within six months of the commencement of the contract and at the rate contract period a certificate in the following forms will have to be submitted by the supplier :-
I/We certify that the stores of description identical to the store supplied to the Govt. of under the contract herein have not been sold by me/us to any other State Govt. / Central Govt. / DGS & D / Public Undertaking during the contract of Silvassa except for the quantity of under sub-clause i & ii of the clause 31.c.

**32 Jurisdiction**

a) In respect of all disputes or claims related with Rate Contracts out of or under this contract, Court alone shall have jurisdiction to entertain the same.
b) In respect of all disputes or claims related with Supply, Payments and any other out of or under this contract, the concerned Court of Purchaser's place shall have jurisdiction to entertain the same.

***Sd/-***
***Medical Superintendent***
Shri Vinoba Bhave Civil Hospital
Dadra & Nagar Haveli
Silvassa

# SECTION IV :

# SPECIAL CONDITIONS OF CONTRACT (SCC)

# SECTION IV :

# SPECIAL CONDITIONS OF CONTRACT (SCC)

## TABLE OF CLAUSES


| Clause No. | Topic | Page No. |
|---|---|---|
| 1 | Definitions (GCC Clause 1) | 39 |
| 2 | Performance security (GCC Clause 7) | 39 |
| 3 | Inspection and tests (GCC Clause 8) | 39 |
| 4 | Annual / Comprehensive Maintenance Contract) & Training | 40 |
| 5 | Packing (GCC Clause 9) | 40 |
| 6 | Delivery and documents (GCC Clause 10) | 41 |
| 7 | Insurance (GCC Clause 11) | 41 |
| 8 | Payments (GCC Clause 14) | 41 |
| 9 | Prices (GCC Clause 15) | 42 |
| 10 | Liquidated damages & deduction in payment (GCC Clause 20) | 42 |
| 11 | Resolution of disputes (GCC Clause 25) | 42 |
| 12 | Notices (GCC Clause 28) | 42 |
| 13 | Supplier Integrity | 43 |
| 14 | Supplier's obligations | 43 |
| 15 | Patent right (GCC Clause 6) | 43 |
| 16 | Progress of Supply | 43 |
| 17 | Section V: Bid Form | 44 |

# Special Conditions of Contract

The following special conditions of contract shall supplements the general conditions of contract whenever there is a conflict, the provisions herein shall prevail, over those in the general conditions of contract the corresponding clause numbers of the general conditions is indicated in parentheses.

**1 Definitions (GCC Clause 1)**

| | |
|---|---|
| GCC 1.g | The Purchaser is the Medical Superintendent, Shri Vinoba Bhave Civil Hospital, Dadra & Nagar Haveli, Silvasa is also Good's Receiving Authority. |
| GCC 1.i | The Supplier is the individual or firm supplying the Goods and Services under this Contract. |
| GCC 1.h | The Purchaser Country is India. |
| GCC 1.l | The project site is as per supply order. |

**2 Performance security (GCC Clause 7)**

The supplier shall be required to pay 10% performance security of the order value. The performance security should be paid upfront in respect of each supply order or before the due date fixed by the Purchaser, valid up to 5 year and 6 months for performance obligations including warranty obligations.

Substitute clause 7.d of the GCC by the following. The performance security will be discharged by the Purchaser and returned to the supplier not later than 60 days following the date of completion of the supplier's satisfactory performance obligations including the warranty obligations under the contract.

**3 Inspection and tests (GCC Clause 8)**

If purchaser wishes:

A. The inspections shall be carried out by the appointed Technical Committee or Inspection Agency at the premises of the suppliers / godown or stores of the supplier / at point of delivery / installation. Inspection and testing charges for the above purpose shall be borne by the supplier.

B. Inspection note will be issued by the inspection committee verifying the specification, performance, details of accessories supplied with the machine, test certificate issued by the respective authority etc. as decided by the purchasing committee.

C. The machine will be dispatched only after the inspection procedure has been followed and inspection note issued to accept the consignment.

D. The consignee may also draw the sample, at random, from the consignment within 45 days of their receipts, and get them re-tested to satisfy whether the lots conform to the laid down specification. In the event of the sample failing to conform to specification, the consignee shall reject the batch of supply and inform the supplier for arranging replacement of the rejected batches at his own cost.

E. When the inspection conducted on the premises of the supplier, all reasonable facilities and assistance including access to drawing and production data shall be furnished to the inspectors at no charge to the Purchaser.

F. In the event of the sample of EQUIPMENTS failing quality test and found to be not as per specification the Purchaser is at liberty to make alternative purchase of the items, of EQUIPMENTS for which the supply orders have been placed, from any other sources or in the open market or from any other suppliers who might have quoted higher rate at Bid and the cost of the supplier and in such cases the Purchaser has every right to recover the excess cost from supplier's performance security.

G. If any items of equipments supplied by the supplier have been partially or wholly used or consumed after supply and are subsequently found to be in bad order, unsound, inferior in quality or description or otherwise faulty or unfit for consumption and if payment had already been made to him then the contract price or prices of such articles or things will be recovered from the supplier,. The supplier will not be entitled to any payment, whatsoever, for items of equipments found to be NOT OF STANDARD QUALITY whether consumed or not and the purchaser is entitled to deduct the cost of such equipments from any amount payable to the supplier. On the basis of nature of failure, the product / supplier will be moved for black listing.

H. For equipments labelled as NOT OF STANDARD QUALITY, the concerned administration will be informed for initiating necessary action against the supplier and that product shall be banned / black listed and no further supplies will be accepted from him till he is legally discharged. The supplier shall also not be eligible to participate in tenders for supply of such equipments for a period of five subsequent years.

**4 Annual (without spare parts) (AMC) / Comprehensive (include free labour, repair, other services & spare parts) Maintenance Contract (CMC) & Training**

The Bidder shall also quote charges for Annual (without spare parts) / Comprehensive (include free labour, one technical manpower available round the clock for assistance for one year posted in hospital, repair, other services & spare parts) Maintenance Contract for the next five years after the expiry of five years warranty period in Annexure-XI

The bidder shall provide operational training to Technician staff / operator for minimum of 3 days by the expert or as instructed at the time of agreement.

The bidder should take guarantee of the availability of all spare parts for a minimum period of 10 years from the date of installation.

Genuine equipments and instruments etc. should be supplied. Tenderers should indicate the source of supply i.e. name and address of the manufacturers from whom the items are to be imported.

**5 Packing (GCC Clause 9)**

Packing Instructions: The Supplier will be required to make separate packages for each Consignee. Each package will be marked on three sides with proper paint/indelible ink, the following:

(i) Project (ii) Contract No. (iii) Country of Origin of Goods (iv) Supplier's Name; and (v) Packing list reference number.

Packing should be able to prevent damage or deterioration during transit.
In the event of items of equipments supplied found to be not as per specifications in respect of their packing, the Purchaser is at liberty to make alternative purchase of the items of equipments for which the supply orders have been placed from any other sources or in the open market or from any other bidder who might have quoted higher rates at the risk and the cost of the supplier and in such cases the Purchaser has every right to recover the cost and imposes penalty as mentioned in GCC clause 21.a.

**6 Delivery and documents (GCC Clause 10)**

Upon delivery of the goods, the supplier shall submit the following documents to the Purchaser.

(i) Three copies of the supplier invoice showing Goods description, quantity, unit price, and total amount.
(ii) Acknowledgement of receipt of goods from the consignee(s).
(iii) Installation certificate signed by respective consignee.
(iv) Manufacturer's / supplier's warranty certificate.
(v) Inspection certificate issued by the nominated inspection agency, and the Supplier's factory inspection report; and
(vi) Certificate of origin.
(vii) Photocopy of all test report of all equipments etc. should be submitted with every delivery challan.

**7 Insurance (GCC Clause 11)**

For delivery of goods at site, the insurance shall be obtained by the supplier in an amount equal to the value of the goods from final destinations as specified in the supply order of "All Risks" basis including war Risks and strike.

Should any loss or damage occurs, the supplier shall:

(a) Initiate and pursue claim till settlement, and
(b) Promptly make arrangement for replacement of any damaged item/s irrespective of settlement of claim by the underwriters.

**8 Payments (GCC Clause 14)**

Payment for goods and services shall be made in Indian Rupees as follows:-

a) 60%payment will be made after successful completion of supply of goods/service on turny key basis as per supply order.
b) 40% Payment will be made after successful installation, commissioning and successful test running at the site and after submission of:
   - Certificate of acceptance by the Medical Superintendent, SHri VBCH and counter signed by the Executive Engineer, PWD
   - 10% Performance Security to be deposited in the form of Bank Guarnatee which would be valid for five years and six months.
c) All payments shall be made by RTGS.
d) All bills / invoices should be raised in triplicate in the name of Purchaser.
e) FALL CLAUSE: If, at any time, during the said period, the supplier reduce the said prices of such Stores/ Equipment or sales such stores to any other person/organization at a price lower than the chargeable, he shall forthwith notify such reduction or sale to the PURCHASER and the price payable for the Stores supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.

**9 Prices (GCC Clause 15)**

Substitute clause 15.a of the GCC with the following:

Prices payable to the supplier as stated in the contract shall not be subject to adjustment during performance of the contract

**10 Liquidated damages & deduction in payment (GCC Clause 20)**

For delay :

- If the supplier fails to deliver any or all the goods or perform the services within the time period(s) specified in the contract. The Purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price as liquidated damages, a penalty of 0.5% of the total value of order per week will be imposed subject to maximum of 10% of the total value of order. Once the maximum is reached, the purchaser may consider termination of the contract.

- Supply in damaged condition shall not be accepted. In case of damage in the packing, the supply will be accepted only after levying penalty or replacement of damaged supply on the total value of supply to that particular / other designated place.

- Supply must be in toto i.e. not in fraction.

For non supply:

Security deposit of the firm shall be forfeited and the firm shall be blacklisted.

**11 Resolution of disputes (GCC Clause 25)**

Add as GCC clauses 25.d and 25.e the following:

- The dispute resolution mechanism to be applied pursuant to GCC clause 25 shall be as follows:
  In case of dispute or difference arising between the Authority / Purchaser and supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The Next Higher Authority shall be the Arbitrator.
- The Venue of Arbitration shall be at concerned place of next higher authority of Purchaser.

**12 Notices (GCC Clause 28)**

For the purpose of all notices, the following shall be the address of the Authority & Purchaser and supplier:

Authority:

Purchaser :

Supplier : (To be filled at the time of Contract Signature)

---

**13 Supplier Integrity**

The supplier is responsible for and obliged to conduct all contracted activities in accordance with the contract using state-of-the-art methods and economic principles and exercise all means available to achieve the performance as specified in the contract.

**14 Supplier's obligations**

The supplier is obliged to work closely with the R.C.A. & Purchasers staff, act within its own authority and abide by directives issued by the Purchaser and implementation activities.

The supplier will abide by the job safety measures prevalent in India and will free the purchase from all demands or responsibilities arising from accidents or loss of life the cause of which is the supplier's negligence. The supplier will pay all indemnities arising from such incidents and will not hold the Purchaser responsible or obligated.

The supplier is fully responsible for managing the activities of its personnel or sub contracted personnel and will hold itself responsible for any misdemeanors.

The Supplier will treat all data and information about the Authority / Purchaser, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Authority / Purchaser.

**15 Patent right (GCC Clause 6)**

In the event of any claim asserted by a third party of infringement of copyright , patent, trademark or industrial design rights arising from the use of goods or any part thereof in the Purchaser's country, the supplier shall act expeditiously to extinguish such claim. If the supplier fails to comply and the Purchaser is required to pay compensation to a third party resulting from such infringement, the supplier shall be responsible for the compensation including all expenses court cost and lawyers fees. The Purchaser will give notice to the supplier of such claim, if it is made, without delay.

**16 Progress of Supply**

Supplier : (To be filled at the time of Contract Signature)

---

Supplier shall regularly at every 7 days interval shall intimate item wise progress of supply in writing, to the Purchaser as under:

- Quantity offered for inspection and date :
- Quantity accepted / rejected by inspecting agency and date:
- Quantity dispatched / delivered to consignee and date :
- Quantity where incidental services have been satisfactorily completed with date :
- Quantity where rectification / replacement effected / completed on receipt of any communication from consignee / Purchaser with date :

***Sd/-***
***Medical Superintendent***
Shri Vinoba Bhave Civil Hospital
Dadra & Nagar Haveli
Silvassa

SECTION V

Ref. Clause No. 17.1(p) of ITB

# BID FORM

Tender No. Date :

To
Medical Superintendent,
Shri Vinobabhave Civil Hospital,
Silvasa ( U.T.)

I/We, the undersigned, declare that:

i. I/We have examined the bidding documents including Addenda Nos. ……. (insert numbers), the receipt which is hereby acknowledged.

ii. I/We have gone through all terms and conditions of the tender document before submitting the same. I/We hereby agree to all terms and conditions as stipulated in the tender document and offer to supply and deliver …….. (Brief description of equipments) in conformity with the bidding documents in accordance with the schedule of prices attached herewith and made part of this bid.

iii. I/We undertake, if our bid is accepted, to deliver the goods in accordance with delivery period specified in the supply order.

iv. I/We agree to abide by this bid for a period of 180 (numbers) days after the date fixed for bid opening and shall remain binding upon us and may be accepted at any time before the expiration of that date.

v. If our bid is accepted, we commit to deposit a performance security in accordance with GCC clause 7 & SCC clause 2 for the due performance of the contract.

vi. Until a formal contract is prepared and executed, this bid together with your written acceptance thereof and your notification of rate contract shall constitute a binding contract between us.

vii. I/We undertake if at any time, it is found that any information furnished by us to the Authority, either in our bid or otherwise, is false, the Authority servers the right to terminate the contract without assigning any reasons, forfeiting the bid security or performance security and blacklisting us for a period of 5 years.

viii. I/We understand that you are not bound to accept the lowest or any bid you may receive.

ix. I/We hereby submit our tender for the _____.

x. I/We now enclosing herewith the E.M.D. No._____ dated _____.

xi. I/We have noted that overwritten entries shall be deleted unless duly cut & re-written and initialed.

xii. Tenders are duly signed (No thumb impression should be affixed).

xiii. I/We undertake to sign the contract / agreement, if required, within 15 (fifteen) days from the date of issue of the letter of acceptance, failing which our/my security money deposited may be forfeited and our/my name may be removed from the list of suppliers.

Dated this …….. day of …….. 2014.

(Signature) ……..

(in the capacity of :……..)

Duly authorized to sign for and on behalf of ……..

Witness 1

Witness 2

# TABLE OF ANNEXURES


| Sr. No. | Topic | Page No. |
|---|---|---|
| 1 | Annexure – I (Sales Tax Clearance Certificate) | 47 |
| 2 | Annexure-II (Manufacture Authorization Form) | 48 |
| 3 | Annexure – III (Declaration / Undertaking Form) | 49 |
| 4 | Annexure – IV (Proforma for Performance Statement) | 50 |
| 5 | Annexure – V (Annual Turnover Statement) | 51 |
| 6 | Annexure – VI (Specification of require Equipments) | 52 |
| 7 | Annexure – VII (Performance Security Form) | 53 |
| 8 | Annexure – VIII (Contract Agreement) | 54 |
| 9 | Annexure – IX (Details of Manufacturing Unit) | 57 |
| 10 | Annexure – X (The Price Schedule) | 58 |
| 11 | Annexure – XI (Price Schedule for AMC / CMC) | 59 |
| 12 | Annexure – XII (Details of Service Centre in Gujarat/Maharashtra/DNH) | 60 |
| 13 | Annexure- XIII (Detail Scope of Work) | 61 |
| 13 | Check List | 64 |
| 14 | Technical Specifications | 67 |

ANNEXURE – I

**FORM OF CERTIFICATE OF SALES TAX / VAT VERIFICATION TO BE PRODUCED BY AN APPLICANT**

**(To be filled up by the applicant)**

01. Name of style in which the applicant is addressed or assessable to sales tax / VAT addresses or assessment.

02. a. Name and address of all companies , firms or associations or persons in which the applicant is interested in his individual or fiduciary capacity

1. Places of business of the applicant (all places of business should be mentioned)

03. The Districts, blocks and division in which the applicant is assessed to sales tax / VAT (all places of business should be furnished)

04. a. Total contract amount or value of patronage received in the preceding three years

2010-11

2011-12

2012-13

b. Particular of sales – Tax / VAT for the preceding three years

| Year | Total T.O. (Turnover) be assessed (Rs) | Total Tax assessed (Rs) | Total Tax Paid (Rs) | Balance due (Rs) | Reasons for Balance (Rs) |
|---|---|---|---|---|---|
| 2010-11 | | | | | |
| 2011-12 | | | | | |
| 2012-13 | | | | | |

c. If there has been no assessment in any year, whether any returns were submitted? if yes, the division in which the returns were sent?

d. Whether any penal action or proceeding for the recovery of Sales tax / VAT is pending?

e. The name and address of Branches, if any :

I declare that that the above information is correct and complete to the best of my knowledge and belief.

Signature of Applicant:

Address:

Date:

**(To be filled up by the Assessing Authority)**

In my opinion, the applicant mentioned above has been / has not been / doing everything possible to pay the tax demands promptly and regularly and to facilitate the completion of pending proceeding.

Date Seal : Deputy / Asstt. Commercial Tax – Officer

Deputy Asstt.

Note: A separate certificate should be obtained in respect of each of the place of business of the applicant from the deputy commercial tax officer or Assistant commercial tax officer having jurisdiction over that place.

**ANNEXURE – II**

**MANUFACTURER'S AUTHORIZATION LETTER**

**No…… Dated……**

To,

Dear Sir,

Tender No.:

We _____ an established and reputable Manufacturers of _____ having factories at _____ and _____ do hereby agree to supply _____ confirming to the required specification and required quantity to M/s _____ (Bidder) as offered by them to supply against the above stated Tender. This is also certified that M/s _____ is our authorized distributor / importer since _____ (month & year should filled), and his performance is satisfactory.

We hereby extend our full guarantee and warranty as per Clause 13 of the General Conditions of Contract for the supply against this invitation for Bid by the above firm.

Yours faithfully,

(name)

for and on behalf of M/s _____ (Name of manufacturers)

**Note: This letter should be signed by a person competent and having authority to sign on behalf of manufacturer, and should be duly Notarized.**

**ANNEXURE – III**

**DECLARATION / UNDERTAKING**

I/We/ M/s._____ represented by its Proprietor / Managing Partner / Managing Director having its Registered Office at _____ and its Factory Premises at _____ do declare that I/We have carefully read all the conditions of tender in Ref. No._____ for supply of equipment, floated by the Purchase Committee, and accept all conditions of Tender.

I/We agree that the Purchaser has rights of forfeiting the Bid Security and or Performance Security Deposit and blacklisting me/us for a period of 7 years if any information furnished by us proved to be false at the time of inspection and not complying to the tender conditions.

Signature of the Bidder

Name & Address in capital letters with Designation

**To be duly Notarized.**

**ANNEXURE – IV**

**PROFORMA FOR ITEMWISE LIST OF INSTALLATIONS IN LAST THREE YEARS OF THE MANUFACTURER'S**

Name of the Manufacturer _____

| Sl. No. | Name of installed machines and model | Name of the Purchaser & address with phone number | Date of installation | Quantity |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

**Signature and seal of the Bidder**

**Annexure-V**

# ANNUAL TURNOVER STATEMENT

The annual Turnover of M/s ……. For the past three years are given below and certified that the statement is true and correct.

Turnover in Crore (Rs.)

| Sr No. | Year | Turnover in Crores (Rs) |
|---|---|---|
| 1. | 2010-11 | |
| 2. | 2011-12 | |
| 3. | 2012-13 | |

Date :

Seal:

Signature of Auditor／

Chartered Accountant

(Name in Capital)

**ANNEXURE-VI**

# SPECIFICATIONS OF EQUIPMENTS

Tender No.

| Sr No | Item Code | Name of Item / Equipment | Specification Required by Purchaser | Make & Model | Specification as quoted by bidder | Compliance / Deviations |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**ANNEXURE-VII**

# PERFORMANCE SECURITY FORM

To: …… (Name of Purchase)

Whereas …….. (Name of Supplier)

hereinafter called "the supplier" has undertaken , in pursuance of Contract No. …… dated…… 20__ to supply …….. [description of goods and related services] hereinafter called "the Contract".

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Suppliers performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of _____ (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limit of _____ (amount of Guarantee) as aforesaid, without needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the …….. day of …….. 20__ .

Signature and Seal of Guarantors

---

---

Date ……20__

Full Address of the Bank:

---

---

Telephone No. ----------

Fax No. ----------

Email Address ----------

**ANNEXURE-VIII**

# CONTRACT AGREEMENT FORM

## (Tender No._____)

THIS CONTRACT AGREEMENT made the ……day of …….. 2014 between Authority (Medical Superintendent, Shri Vinobabhave Civil Hospital, Silvasa .) (Name of Authority) of India (country of Authority) (hereinafter called "the Authority" ) of one part and M/s ……. (name of supplier) of ……. (city and country of supplier) (hereinafter called "the supplier") of the other part :

**WHEREAS** the Authority invited bids for certain goods and ancillary services viz. EQUIPMENTS (Brief description of goods" and services) and has accepted a bid by the supplier for the supply of those goods and services.

**NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:**

1. In this agreement words and expression shall have the same meaning as are respectively assigned to them in the conditions of contract referred to :
2. The following documents shall constitute the contract between the Authority and the supplier, and each shall be read and construed as an integral part of the contract :
   a. This contract agreement :
   b. Instructions of contract :
   c. General conditions of contract :
   d. Special conditions of contract :
   e. Technical Specifications :
   f. The supplier's bid and original price schedules
   g. The Authority's notification of rate contract.
3. This contract shall prevail all other contract documents. In the event of any discrepancy or inconsistency with the contract documents, then documents shall prevail in the order listed above.
4. In consideration of the payments to be made by the Purchaser to the supplier as hereinafter mentioned, the supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the contract.

5. The Purchaser hereby covenants to pay the supplier in consideration of the provision of the goods and services and the remedying of defects therein, the contract price or such as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

Brief particulars of the goods and services which shall be supplied / provided by the supplier are as under:-

| Sr No. | Item Code | Item Description | Unit | F.O.R. Rate 8 |
|---|---|---|---|---|
| | | | | |

* The above rates are inclusive of excise duty, transportation, insurance, inspection & testing charges and any incidental charges and CST/VAT.

6. The prices shall be valid for one year from the date of agreement, unless revoked and thereafter for a further period as agreed upon mutually.
7. The supplier shall agree to deposit inspection and testing charges and service tax as per tender conditions, in advance by cash / demand draft, against the value of supply order.
8. The supplier shall agree to deposit 10% performance security, along with as mentioned at point no. 7 (above), in advance by FDR / Bank Guarantee, against the value of particular supply order for a period of 12 months.
9. The suppliers are not authorized to supply material directly to any state Govt. / Semi Govt. / any other organization on the rate lower than the rate contract.
10. The supplier shall supply the goods directly to the indentor / purchaser at the address given in the supply order.
11. The supplier shall raise bills directly in the name of indenting officer / purchaser against the supplies made directly by them to the indentor's satisfaction in compliance with the conditions contained in the supply order.
12. The supplier shall receive payment against its bill directly from the indenting department / purchasing department. In case of Non-payment for the supplies made by supplier, they will demand payment directly from the department / indentor concerned and in no case Purchase Committee shall be responsible for the consequence for delayed payment or non-payment.
13. The supplier shall carefully read all the conditions of tender for supply of equipment, floated by the Purchase Committee, and accept all terms and conditions in the tender document. Signing this contract means that the supplier has read all the terms and conditions and abide by it.

**IN WITNESS** whereof the parties hereto have caused this agreement to be executed in accordance with their respective laws the day and year first above written.

That, in token of this agreement, both parties have today affixed their signature at Silvassa.

Signed, Sealed and delivered by the

Said …… (For the AUTHORITY)

In the presence of: ……..

Signed, Sealed and Delivered by the

Said …… (For the supplier)

In the presence of: ……..

**ANNEXURE-IX**

# DETAILS OF MANUFACTURING UNIT / AUTHORIZED DISTRIBUTORS

Name of the Tenderer & Full Address :

(Whether manufacturer / authorized distributor)

PAN number :

Phone Nos. :

Fax No. :

E-mail Address :

Date of Inception :

Equipments Manufacturing / Distribution License No & Date :

Issued by :

Valid upto :

CST / VAT Registration No. :

If bidder is authorized distributor then :

name, address, telephone, fax of

authorized manufacturer.

Name & Designation of Authorized Signatory

Signature of the Authorized Signatory

**The details of manufacturing unit / authorized distributor shall be for the premises where items quoted are actually manufactured / stoked.**

**ANNEXURE-X**

# PRICE SCHEDULE

| Sr No | Particulars | Rate (Inclusive of excise, VAT, octroi, transportation, insurance, service charges, inspection charges and any incidental charges etc.) |
|---|---|---|
| (1) | (2) | (3) |
| 1 | Renovation of Operation Theatre Complex- Supply, Installation and Commissioning of all items as mentioned in Scope of Work in Annexure XIII | |

Place:

Date:

Signature

Name in Capital Letters

Designation

**Note: This format of price schedule is a sample for the Bidders. Price schedule should be submitted online only in the prescribed format and price schedule should not be submitted in physically or in form of CD, otherwise bid shall be rejected.**

**ANNEXURE-XI**

# PRICE SCHEDULE FOR ANNUAL (WITHOUT SPARE PARTS) /COMPREHENSIVE (INCLUDE FREE LABOUR, ONE YEAR MANPOWER POSTED IN VBCH, REPAIR, OTHER SERVICES & SPARE PARTS) MAINTENANCE CONTRACT (A.M.C. / C.M.C. ) AFTER EXPIRY OF WARRANTY

## (RATES SHOULD BE QUOTED IN PERCENTAGE OF THE VALUE OF THE MACHINE)

| Sr No | SME Code No. | Name of the Equipment | For first year | | For second year | | For third year | | For fourth year | | For fifth year | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | | (5) | | (6) | | (7) | | (8) | |
| | | | AMC | CMC | AMC | CMC | AMC | CMC | AMC | CMC | AMC | CMC |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Place:

Date: Signature

Name in Capital Letters

Designation

**Note: This format of price schedule is a sample for the Bidders. Price schedule should be submitted online only in the prescribed format and price schedule should not be submitted in physically or in form of CD, otherwise bid shall be rejected.**

**ANNEXURE-XII**

# DETAIL OF SERVICE CENTER

| S. No. | City | Name & Place of Service Center | Address, Telephone, Fax & email | No. of Service Engineer with Name / Mobile No. | Remark |
|---|---|---|---|---|---|
| A | GUJARAT | | | | |
| 1 | | | | | |
| 2 | | | | | |
| | | | | | |
| B | MAHARASHTRA | | | | |
| 1 | | | | | |
| 2 | | | | | |
| | | | | | |
| C | DADRA & NAGAR HAVELI | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**Name & designation of the authorized Signatory**

**Signature of the authorized signatory**

## ANNEXURE-XIII

**SCOPE OF WORK**

| Sr. No. | Description | Qty (Approx) | Available standards / Certificates | Model | Make |
|---|---|---|---|---|---|
| 1 | Wall Panels | As Actuals | | | |
| 2 | Ceiling Panels | As Actuals | | | |
| 3 | Laminar Air Flow System | 7 | | | |
| 4 | Peripheral Lighting | 7 | | | |
| 5 | Automatically Hermetically Sealing Sliding Doors | 7 | | | |
| 6 | Surgeon (Multifunctional) Control panel with electrical distribution board | 7 | | | |
| 7 | Pressure relief dampers with backside grills | In all OTS | | | |
| 8 | Conducive flooring with coving for corners | In all OTS and passages | | | |
| 9 | Conduiting and Wiring | As per actuals | | | |
| 10 | Aluminum Ducting | As per actuals | | | |
| 11 | Swing Main Door | 2 | | | |
| 12 | Electrical Works | As per actuals | | | |

| | | | | | |
|---|---|---|---|---|---|
| **13** | **Dismantling and rebuilding and miscellaneous works** | **As per actuals** | | | |
| **14** | **Dimmable flushed LED X-ray View Box** | **7** | | | |
| **15** | **Flushed Storage Cabinets** | **7** | | | |
| **16** | **Magnetic Writing list board** | **7** | | | |
| **17** | **Ceiling Supply Unit for anesthesia** | **7** | | | |
| **18** | **Ceiling Supply Unit for surgeons** | **7** | | | |
| **19** | **Surgical scrub sink** | **1** | | | |
| **20** | **Surgical light double dome LED ceiling mounted** | **5** | | | |
| **21** | **Tri axle surgical light LED** | **2** | | | |
| **22** | **HD flat panel suspension system** | **2** | | | |
| **23** | **HD flat panel** | **2** | | | |
| **24** | **Inlight surgical camera** | **2** | | | |
| **25** | **Operating Room Integration System** | **2** | | | |
| **26** | **Digital High definition documentation system** | **2** | | | |
| **27** | **Operating equipment integration system** | **2** | | | |
| **28** | **Monitoring PTZ room camera system** | **2** | | | |
| **29** | **High Definition camera system with xenon light source, 3 chip camera** | **2** | | | |

| | | | | | |
|---|---|---|---|---|---|
| | **having resolution of 1920x1080p, ligh cable, HD video imaging capturing device with HD medical grade monitor** | | | | |
| **30** | **Polycom for video conferencing** | **2** | | | |
| **31** | **Internal cabling** | **All OTs** | | | |
| **32** | **Stretchers** | **3** | | | |
| **33** | **Medical Gas Pipeline System** | **All OTs** | | | |
| **34** | **Operation Table** | **7** | | | |
| **35** | **Anesthesia Workstation with Multipara Monitor- Pendant mounted** | **5** | | | |
| **36** | **Anesthesia Workstation with Multipara Monitor- Trolley mounted** | **2** | | | |
| **37** | **Integration of existing fire safety system** | **1** | | | |

## CHECK LIST FOR TERMS AND CONDITIONS FOR EQUIPMENTS

Check list for Terms and Conditions (To be filled by the bidder and submitted along with the bid) Page No. must be mentioned against each serial.

**All non notarized documents except EMD must be self attested together with official seal .**

| Documents | Check Yes / No | If, Yes Page No. |
|---|---|---|
| 1. Annexure – I (Sales Tax Clearance Certificate) | | |
| 2. Annexure-II (Manufacture Authorization Form) | | |
| 3. Annexure – III (Declaration / Undertaking Form) | | |
| 4. Annexure – IV (Proforma for Performance Statement) | | |
| 5. Annexure – V (Annual Turnover Statement) | | |
| 6. Annexure – VI (Specification of require Equipments for Modular Operation Theatre) duly signed and stamped on each page | | |
| 7. Annexure – VII (Performance Security Form) | | |
| 8. Annexure – VIII (Contract Agreement Form) | | |
| 9. Annexure – IX (Details of Manufacturing Unit) | | |
| 10. Annexure – XII (Details of Service Centre in Gujarat/Maharashtra/DNH) | | |
| 11. Annexure – XIII (Detail Scope of Work.) | | |
| 12. Registration Certificate of the company with details of the Name, Address, Telephone Number, Fax Number, e-mail address of the firm and of the Managing Director / Partners / Proprietor. | | |
| 13. Authorization letter from manufacturer authorizing a person to transact a business | | |
| 14. The instruments such as power of attorney, resolution of board etc., authorizing an officer/person of the bidder should be submitted with the tender and such Authorized officer/person of the bidder should sign the tender documents. | | |
| 15. Market Standing Certificate issued by the Licensing Authority as a Manufacturer / distributor for each equipment quoted for the last 3 years. In case of direct importer, evidence for importing the said | | |

| Documents | Check Yes / No | If, Yes Page No. |
|---|---|---|
| items for the last three years. | | |
| 16. The bidder should also submit national & international quality certificates like ISI/CE/C ISO-9001, 13485, 14001etc" mark / IEC standard or equivalent certificate of quoted product, if available. | | |
| 17. The bidders have to submit name of the items, its code no. for which they are quoting in the price bid. Such names and items code of the items should be submitted along with the technical bid, failing which the tenderer's price bid will not be opened. The Bidder has to submit Name of Item and its code number. | | |
| 18. Bidder / its sister concerns / companies where its Promoters / Directors either directly or indirectly are involved, should not have ever been blacklisted in tender / supplies. Bidder should submit affidavit in this regard. The bidder should provide accurate information of litigation or arbitration resulting from contracts completed or under execution by him over the last Ten years. history False affidavit would lead to blacklisting and termination of the contract at any stage. In such cases all the loses that will arise out of this issue will be recovered from the Tenderer / Contractor and he will not have any defence for the same. In case of bidder / principal is involved / penalized under any investigation of CVC or any Govt. Commission in relation to the similar work project issue; the bid will be disqualified.<br><br>The firm has not supplied the same item at the lower rate than quoted in the tender to any Govt. / Semi Govt. or any other organization. Affidavit to this effect shall be submitted by the concern / company and should be duly notarized on 100/- Non judicial stamp paper. | | |
| 19. Original Bid Form duly signed by authorized signatory as per Section V, duly sealed and signed by the bidder on each page for acceptance of Terms and Conditions. | | |
| 20. Bidders should have the registration under Commercial Tax Authority Registration should be attached. | | |
| 21. An affidavit of the manufacturer on a Non judicial stamp paper on Rs. 100/- binding itself for supply of genuine spare parts to the purchaser for a period of minimum 5 years beyond warranty period. | | |

| Documents | Check Yes / No | If, Yes Page No. |
|---|---|---|
| 22. An affidavit of the manufacturer on a Non judicial stamp paper on Rs. 100/- that the quoted equipment is the latest model of the company matching to the specification of this tender and that it is not refurbished equipment. | | |
| 23. Certificate for being in business or more than 3 years | | |
| 24. Certificate for sole ownership / partnership. | | |
| 25. Statement of good financial standing from bankers. | | |
| 26. The printed original catalogues of primary manufacturer and any other technical documents like data sheet or operational manual of equipment with highlighting the features in portal along with the other documents. In catalogue, the quoted product no. and name should be highlighted, against which that product is quoted. These documents are also to be submitted in physical form before due date along with Bid security. | | |
| 27. In case of imported equipment IEC certificate of importer / bidder shall be submitted. | | |
| 28. Scan Copy of Terms & Conditions documents duly signed and stamped on each page | | |
| 29. Any other relevant document required as per tender document. | | |

# SPECIFICATIONS FOR MODULAR OT

All products should be designed and manufactured according to ISO 9001:2000 standards. It should be confirming to ISO 14644, VDI 2083 and GMP guidelines.

System of stainless steel wall panels stainless steel type EN 1.4301 powder coated/antibacterial solid mineral surface composite material, ceiling panels, interior doors and windows should be designed for operating theatres, treatment rooms as well as rooms in which high sanitary and hygienic standards are required. Fire rating certificates and antibacterial test report should be uploaded.

Design of panels must allow the easy disassembly to carry out additional changes in the plan and buildings without damaging interior work or panels.

Panel system should be certified by some institute like National Institute of Hygiene, Department of Environmental Hygiene.

Main advantages of the panel system:

a) Easy to clean and disinfect, what shortens time between operations
b) Can be quickly installed
c) Easy installation under the panels
d) Quick disassembly and dismantling of a panel and modernization of installation underneath
e) With additional strengthening elements it is possible to mount on panel surgical scrub sinks, shelves, cabinets etc.
f) Guarantee high mechanical resistance

## 1. Wall Panels -

A. If Stainless Steel Used:

- Should be manufactured in multi-layer technology.
- From the front top and bottom the edges of the sheet are bent back at right angles. The side edge should be made bent-shaped edge, which should be used for invisible mounting of panel on the base structure.
- The wall panels should be reinforced by plasterboard with a thickness of 12.5 mm, in accordance with PN-EN 520:2004 + A1: 2009.
- The wall panels should be manufactured with minimum sheet thickness of 1 mm.
- The design of panels must allow the easy disassembly to carry out additional changes in the plan and buildings.
- Wall panels made of stainless steel chrome-nickel steel material EN 1.4301 powder-coated by any of RAL color with the addition of silver ions, which are embedded in the cover of panels during their production.

- The use of nanotechnology should provide 24-hour protection against bacteria, fungi and mold, including Staphylococcus aureus resistant to methicillin, Salmonella, Pseudomonas and Legionella colon.
- This should be confirmed by the appropriate certificate. After the assembly, the contracting authority must provide the test results of samples used for building panels demonstrating the efficacy of the technology used antibacterial wall coverings.
- Panels mounted on a structure made of galvanized steel should enable the distribution of medical gases, electricity, sewerage inside the wall.
- The vertical elements of the corner (concave and convex) should be manufactured from a single element.
- The joints between the panels should not be more than 6 mm and should be provided with antibacterial silicone airtight seal with the addition of silver ions, which are embedded in the coating seals during its production.
- The gasket should be resistant to UV light, detergents, bactericides, water, steam, and means used for disinfection of operating theaters. Gaskets shall conform to the requirements of the PN-EN 12365-1:2005.
- The Wall panels should have sufficient bumpers to prevent accidental damage.

B. If Antibacterial Solid Mineral Surface Used:

The Wall Cladding System is provided in one side with composite finishing panels in **ANTIBACTERIAL SOLID MINERAL SURFACE material,** and attached by means of an interlocking gravity system. The finishing panels should be supplied with attachment brackets in galvanized steel that allow them to be clipped to the self-loading substructure by means of a gravity interlocking system. No screws should be used to fixed panels with substructure in order to have complete modular system. In the case of urgent maintenance requirements the finishing panels should be individually demountable and can be reinstalled without having to remove and reinstall an entire side of the wall / remove screws.

The finishing panels should be produced in a single floor-to-ceiling height unit in order to create a smooth uninterrupted surface and avoiding horizontal joints, thereby eliminating the risk of accumulation of dust and bacteria in any gaps and crevices.

One side of the self loading system should be clad with composite panels with finish be in **ANTIBACTERIAL SMS (SOLID MINERAL SURFACE).**

**The System is composed of :**

- External facing should be of 3mm thick ASEPSI ANTIBACTERIAL SMS sheet, which is a bacteriostatic, dense and non-porous material . The panels are attached by means of an interlocking gravity system.
- The material should be bacteriostatic that should be easy to clean and extremely hygienic. The test certificate for same should be submitted.
- Cuts, scratches, or stains should be easily removed simply by sanding.
- Internal balancing core in 13mm. thick profiled aluminum plate with suitable geometry to ensure the maximum rigidity.
- Interposition of 0.6mm thick aluminium sheet between outer cladding and balancing core.
- Rear facing in 0.9 mm. gauge aluminium sheet.
- In compliance with application method UNI 9177 the panel should be classified as fire reaction Class 1. (Test report of same to be provided)

- The panel should provide optimal structural properties in terms of flatness, low weight, and rigidity. The upgraded exposed material should be composed of acrylic resins with mineral fillers, the recognised tendency for linear expansion of which is completely neutralised by the aluminium chequer plate. The panel should be resistant to thermal shock and wet-dry cycles (Test report to be submitted)
- **Total thickness of Panel should be not less than 18mm.**
  The panels should be supplied with specially designed steel brackets that allow them to be clipped to the system loading sub frame by means of a gravity interlocking system.In order to create a smooth uninterrupted surface between adjacent panels, thereby preventing the risk of the accumulation of dust and bacteria in gaps, the panel should be produced in a single full height floor-to ceiling piece. All the Panels should be UL listed.

## 2. Ceiling panels

- The ceiling panels should be manufactured with high-quality 0.8 mm thick stainless chromium-nickel type EN 1.4301/heavy gauge extruded aluminium profiles with durable thermosetting epoxy powder coating forming the grid on which the ceiling panels are mounted
- should be powder-coated in any of RAL color with the addition of silver ions, which are embedded in the shell panels during their production/ finished using various innovative high tech materials including outer facing with 6mm sheet in Antibacterial Solid Mineral Surface which is bacteriostatic, perfectly uniform and non-porous material.
- The use of nanotechnology should provide 24-hour protection against bacteria, fungi and mold, including against Staphylococcus aureus resistant to methicillin, Salmonella, Pseudomonas and Legionella colon.
- Ceiling tiles should have a standard modules sized 600 x 600 mm.
- Installation Ceiling should create a tight space.
- The ceiling panels mounted to the structure can be removed individually.

## 3. Laminar Air Flow System

1. To guarantee supply of highly filtered air above operating zone by using laminar flow unit with three stage filtration minimum of **H13** level.
2. Laminar flow unit should guarantee filtered air supply with steady speed of approximately 0,23 m/s.
3. Installation of laminar flow unit should serve to prevent bacterial contamination, viruses and dust particles elimination.
4. Flanges for air supply into laminar flow unit must be set at least 160 mm from the lower edge of laminar flow unit.
5. Size of laminar box should be designed by the modular operation theatre supplier according to the requirement of air exchange, whole volume of the air in the operating theater, based on type of the operating theater.
6. Air volume flow should be designed individually for every single operating theater individually by operating theater supplier.
7. The laminar flow unit should not be riveted or screwed with sealed gaps.

8. Frame of the laminar flow unit must be tightly welded from stainless steel or aluminum alloy.
9. Visible surface must be treated by color in same shade as is the ceiling.

**Air exhaust**

1. Air exhausts grids should be provided in corners of rooms and should be connected to the exhaust channels placed behind wall panels.
2. The exhaust channels should be connected to air exhaust grids at both locations, close to the floor as well as close to the ceiling.
3. Part of them must be provided with regulation valve and metal removable filter.
4. Grids should be made from stainless steel.
5. Metal filter is set on bottom exhaust grids.
6. Bottom exhaust grids should be at 300 mm from the floor and upper exhaust grids at 300 mm from the upper edge of the lower ceiling.

## 4. Peripheral lighting System

1. Lighting in the operating theatre and passages must be in accordance with European standard and World standards.
2. Minimum required IP protection is 65 and intensity of lighting in operating theater should be min. 1000 lux.
3. Light fittings should be installed into level with ceiling and will be covered by tempered glass and optical grid.
4. The index of color tone shades should be better then Ra=90.
5. Color of visible parts of lighting fitting must be in accordance with color of ceiling cassettes. The intensity of lights should be controlled by electronic stabilizers.

## 5. Automatically Hermetically Sealing Sliding Doors

To maintain sterility and the correct air pressure in the room, all doors into and out should be of the sliding, hermetically sealing type. The door should meet following specifications:

Automatic hermetically sealed sliding door with **single leaf** for use in controlled bacteria environments; the door can be installed in conventional masonry walls or prefabricated self-loading systems.

LININGS.
Telescopic linings on three sides, made in two parts, the frame profile and the subframe profile, made of extruded aluminium elements shaped with wide radius curves. The frame profile is equipped internally with specific grooves designed to accommodate the friction gasket that joins it to the sub frame profile. In addition, the frame profile features a groove utilised for fixing purposes. The foregoing groove is closed by means of a cover gasket that is completely coplanar with the frame profile. The profiles can be finishing in anodized aluminium or painted with durable thermosetting epoxy powder finish in colours from the RAL as selected by Works Management. Surcharge for extension for wall reveal depths in excess of 260 mm.

HOUSING.

Housing profile to protect and cover the sliding mechanism made of extruded aluminium shaped with a wide radius curve without live edges or protrusions, to ensure ease of cleaning. The housing profile features a groove designed to receive the masking gasket that allows the complete closure of the lower side in correspondence with top profile of the door leaf. The ends of the housing profile are fitted with end caps having an identical radius of curvature to the profile and performing a closing function. The housing profile allows easy maintenance that can be performed by a single operator thanks to a lever that makes it possible to hold it in the open position. The housing profile can be finishing in anodized aluminium or painted with durable thermosetting epoxy powder finish in colours from the RAL chosen by Works Management.

DOOR LEAF.

Door leaf made of extruded aluminium profiles shaped with wide radius curves. The top profile of the door leaf is made with a special cross section that allows the direct application of the hanger kit without having to fit an adapter profile. A special extruded non-toxic silicone sealing gasket, offering a high level of resistance to the chemical action of disinfectants used in the healthcare field, is mounted in a specific groove on the vertical profiles and top profile of the door leaf, on the frame profile side. A special dual component lower sealing gasket with lip facing the frame profile side is fitted in a specific groove on the bottom profile of the door leaf. The leaf profiles can be finishing in anodized aluminium or painted with durable thermosetting epoxy powder finish in colours from the RAL as selected by Works Management.

DOOR PANEL:

Solid door leaf panel in ANTIBACTERIAL SOLID MINERAL SURFACE sheet; this being a bacteriostatic, dense and non-porous material, 3 mm thick, composed of a uniform blend of 1/3 acrylic resin (methyl methacrylate) and 2/3 natural mineral substances.

The result is a durable and uniform bacteriostatic material that is easy to clean and extremely hygienic. Cuts, scratches, or stains can be easily removed simply by sanding. The leaf is a sandwich panel with a hardwood perimeter frame, core in sheet of expanded polystyrene (Styrofoam type) having reaction to fire class 1, and cladding in ANTIBACTERIAL SOLID MINERAL SURFACE, reaction to fire class 1. The thus-formed panel is extremely rigid and offers a high level of acoustic and thermal insulation. Available in the colours specifically created for the healthcare sector as selected by the Works Management.

SLIDING MECHANISM :

Horizontal and vertical sliding movements are achieved by means of a beam profile made of heavy gauge extruded aluminium with anodised finish, prearranged for secure fixing both on masonry walls and on prefabricated self-loading systems.

The beam profile is designed to carry two hangers per leaf, each of which having a single nylon wheel running on ball bearings. The two hanger wheels are designed to guarantee silent operation and distribute the weight of the door leaf over the full length of the beam.

The hangers are positioned symmetrically to ensure balanced suspension of the weight of the door leaf.

The hangers enable adjustment of the door leaf in both a horizontal direction towards the frame profile and in a vertical direction to make it possible to adapt to floor level differences.

The beam profile features a groove designed to receive the masking gasket that allows complete closure of the underside in correspondence with the top profile of the door leaf.

The interior of the beam profile is also prearranged to receive an anti-derailing profile made of extruded aluminium.
The travel limit stops are made with a specific extruded aluminium profile and equipped with rubber buffers.
Specific floor track made of Teflon coated steel.

AUTOMATION.
Automation for sliding doors, complete with:
Operating system transmission with antistatic drive belt reinforced with Kevlar beads;
230 V AC – 50 Hz power supply with short-circuit protection;
High-performance low-wear DC motor;
Status signalling and fault indicator LEDs;
Electronic controller:
Teach-in function with self-diagnostics and error recognition with evaluation of door leaf weight and sliding friction for adaptation of transmitted drive torque;
Automatic adaptation of pause time (door open) on the basis of traffic intensity;
Pause time for fully open door and for door with adjustable reduced opening dimension;
Independently adjustable opening and closing speeds.
Automatic limitation of closing torque to below 150 N;
Anti-crushing function with closing movement reversal and locking in open position;
Battery powered emergency opening or closing;
Back-up battery to open or close the door in the event of an electrical power outage, alarm, or fault.

CONTROLS AND SAFETY DEVICES.
The door is equipped as standard with two large size elbow-operated pushbuttons, a double pair of miniature 13 mm diameter safety photocells positioned to monitor the presence of obstacles on the threshold, back-up battery unit for emergency opening during power outages (the door stops in the open position in order to identify the presence of a fault in the electrical circuit) and a display-type program selector.

The display-type program selector has 5 settings.
- Partial opening;
- Total opening;
- Permanent opening;
- Off/Locked;
- Single direction of operation.

Optional equipment includes touch-type opening controls, radar-operating controls, magnetic badge reader, pneumatic safety bar, etc.

The Door should be compliant to the directive CE
Certification of air permeability class 4 according to UNI EN 12207.

⇨ Machinery Directive 2006/42/EC and subsequent amendments and additions;
⇨ Low Voltage Directive 2006/95/EC and subsequent amendments and additions;
⇨ Community Directive of Electromagnetic Compatibility: 92/31/CEE d.lgs 4/12/92 n° 476 and subsequent amendments and additions.

## 6. Surgeon (Multifunctional) Control Panel – TOUCH SCREEN TYPE

Touch screen Control panel must be able to show temperature, humidity in the operating theater and must be able to be set on required temperature of air as well as light intensity. Also must show function of clock and stopwatch.

The panel should be able to control

a. Basic Features:
   - Display of Medical Gas ALram signals for all gases
   - Temperature and Humidity
   - OR Door
   - HEPA Filter Status
   - Electrical Distribution Board

b. Additional Features- Preferable
   - Peripheral Lighting in OT with intensity control
   - Each dome of Operating room light separately with intensity control
   - Wireless control of Operating Table for height adjustment, tilt etc.

## 7. Pressure Relief Dampers with backside grills

Pressure Relief Dampers should be provided in each room to prevent cross contamination of air from clean and dirty areas. Suitably sized air pressure relief damper should be strategically placed, enabling differential room pressure to be maintained and ensure that when doors are opened between clean and dirty area. Counter-weight balancing system should be provided in the PRD to maintain positive pressure inside the operation room. Air pressure stabilizers should have unique capability of controlling differential pressure to close tolerance. The PRD should remain closed at pressure below the set pressure and should open fully at pressure only fractionally above the threshold pressure.

The body should be epoxy powder coated as per standard BS colors.

First class electrolyzed steel plate should be used for body and with high grade SS304 Stainless Steel for blades.

## 8. Conducive Flooring with coving for corners

1. Flooring is required in minimum standard /Noraplan AL/Colorex EL.,5 x 10 .4 až 10.6 ohms. Color shades should be in accordance with color shade for surroundings.

   Or

   2.00 mm thick approved permanently conductive ESD tiles of size 615mmx615mm as per EN427. The tiles should be manufactured from PVC chips coated with a conductive substance. The tiles should have no effects of castor chair continuous use. The seams between tiles shall be hot welded using the same base material of tiles so that s true material cohesion between tiles can be produced. The flooring should be resistant against non-oxidising organic material and mineral acids in any concentration.
2. Flooring should take up to 100 mm to the wall.
3. The connection of wall with the floor should ensure easy cleaning.

## 9. Conduiting and Wiring

Wiring with low leakage Current wires of FRLS wires as per requirements including providing and fixing of conduit and boxes etc to complete the work in all respect. Wiring for 250Volts single phase and neutral 6/16 amps switched socket outlet with 4sqmm PVC insulated copper Conductor 1100 volts grade stranded flexible wires in concealed or surface mounted 25mm dia 16 gauge PVC conduit including providing and fixing of 6/16 Amps 5 pin switched sockets of approved make and design in 2mm thick GI box with grid plates and earthing the third pin of each socket outlet with 4 q.mm PVC insulated copper conductor tranded flexible wire.

## 10. Aluminium Ducting

Ducting shall be made of Aluminum for supply & for return with curves and bends where indicated for easy flow of air and ensured to be air tight by applying Silicon sealant after fabrication .hanger shall be provided to ducts & shall be suspended by means of GI coated rods & these shall not be more than 2.5mtrs apart .Thermal Insulation with 9mm XPE with aluminum foil for supply & return air ducts. Joints should be lapped with Nitrile rubber tape for better insulation.

## 11. Swing Main Door

1. Doors should be manufactured of the highest quality stainless steel.
2. Stainless steel 0H18N9 (AISI 304) thickness 1 mm polished

   Or

3. Stainless steel 0H18N9 (AISI 304) thickness 1 mm powder coated according to RAL colors palette

   Or

4. Antibacterial Asepsi Solid Mineral Surface sheet, 3mm thick composed of a uniform blend of 1/3 acrylic resin and 2/3 natural mineral substances.
5. Doors construction should properly fit with wall panels and should create a uniform system of the operating theater.
6. Doors should be made as sandwich-type – from two plates, the space between them should be filled with particle board or with so called honeycomb glued to the plates or hardwood perimeter frame core in sheet of expanded polystyrene and cladding in Antibacterial asepsi solid mineral surface,. In installation places of hinges and locks, strengthening components must be used.
7. Thickness of door wings should range in between 40 and 60mm.
8. Frames should be integrated into the panel system and should be prepared individually for each type of door, made of stainless steel 1, 5 mm thick.
9. Fixtures should be made of stainless steel and adapted to requirements – size and weight of door wings, shape of door handles prevents form hooking the aprons.
10. Main door should be Single-winged automatically wide-open door with full or with round viewer.

11. Automatic equipment for door should be provided by reliable manufacturers.
12. Operation of door should be realized through a wall board, elbow buttons or touch less buttons for operating room only and normal doors for sterile room
13. There should be a possibility to install Blinds which can be operated manually or electrically in between the glass panels.
14. Doors should be able to be equipped with door viewers, windows used for room observation, X-ray shields made of 0.5-3mm thick lead plates.

## 15. Electrical Works

All the internal cabling would be done by the successful bidder with a preapproved plan and layout.

## 16. Dismantling and rebuilding and miscellaneous works

The project has to be done in two phases as the unit is functional and hence it may require to build an artificial wall to separate the functional unit with the unit to be renovated. The layout of existing OT complex will be modified and reallocation of OTs are to be done inside the complex which may have Civil works to be executed by the successful bidder.

## 17. Dimmable Flushed LED X-ray view Box

X- Ray viewer with option of vertical as well as horizontal covering must be flushed into operating theater wall.

The dimming function to be provided.

## 18. Flushed Storage Cabinets

1. Modular system of built-in operating theaters must enable possibility to install different types of cabinets based on customer requirements, which must be flushed into place behind wall panels.
2. Those cabinets will be installed in situation, where customer will require them and they will be part of drawing documentation and price offer given to customer.
3. Those cabinets must be in same color shade as wall panels and doors to achieve uniform look of operating theater.

## 19. Magnetic Writing List Board

One operating list board should be provided in each operating theatre .It should be made of ceramic having Magnetic properties and should be flushed to the wall of the operating room.

## 20. Ceiling Supply Unit for Anaesthesia

The supply unit must meet the high standards for a safe and reliable operation in the OR. The supply unit must have upgrading capability of new functions for adaptation to future requirements. All surfaces resistant against corrosion and disinfectants. Colour of painted surfaces: RAL 9002 The functional units of the supply unit are to be completely assembled and tested by the manufacturer.

**General Requirements for Ceiling Supply Units**

- Ergonomic, optimized supply unit consisting of the following functional units:
- Ceiling fixture set for installation to concrete ceiling structure.
- Ceiling interface for connection of supply unit with electrics and gases delivered from site.
- Horizontal swiveling arm system.
- *Media column* with terminal units for medical gas supply/gas evacuation, high- and low voltage power supply according to specification.
- Workstation components such as shelves, drawers, extension arms and equipment holders for ergonomic workplace design according to customer requirements.
- Friction brakes and pneumatic brakes as standard for fixation of adjusted arm position.
- Complete unit including intermediate *ceiling construction and installation*.
- The previously mentioned functional units must be coordinated mechanically, functionally and ergonomically, thus presenting a complete medical supply unit.

**General Standard of Execution, Regulations**

The corresponding requirements of the European Norm EN 793 (special requirements for the safety of medical supply units) Medical Device Directive (MDD) 93/42 EEC as well as the relevant rules and regulations of the law for technical work equipment (equipment safety law) and ISO/IEC (see following table) in their valid version must be fulfilled through the following specified equipment.
Qualified vendor must have a Quality Management System acc. to ISO 9001 and ISO 13485 (Medical) in place, as well as a MDD (Medical Device Directive) annex 2 section 3 certification

**Individual Standards and Regulations**

| | |
|---|---|
| Standards | Basic requirement of the Medical Device Directive (MDD 93/42/EWG)<br>DIN EN 60601-1 / medical electrical devices<br>DIN EN 60601-1-2 / medical electrical devices<br>DIN EN 793 / medical supply units<br>EN ISO 14071 / medical products – Risk analysis |
| Classification | Class II b acc. MD Directive 93/42/EWG appendix IX<br>UMDNS Code: 18-046 |

DIN/NFPA/HTM standards are permissible. The bidder has to ensure that for whichever standards they are quoting should remain same throughout the system (scope of work).

The equipment must be CE-certified or has got the approval of the European regulatory authority according to MDD.
Variations or alternatives to the above-mentioned standards or to the following specified scope of performance must be specifically marked with the abbreviations ”Var.” or ”Alt”.

**Scope of Delivery- and Technical Performance**

**Basic Units**

- Double Ceiling Supply Unit
- Supply unit with two arms
- Swivel range of arms 320° - 330° at each joint
- End stop adjustable at site according to customer requirements
- Easy arm positioning in horizontal level, also with maximum load
- Color RAL 9002

**Arm Systems**

- Arm System with electromotoric height adjustment;
- Arm Length *500+1000* with Media Column *1000*
- Arm system with one horizontal swivel arm, one swivel arm with electromotoric height adjustment, intermediate bearing and ceiling bearing Double braking system, consisting of friction brake and pneumatic brake In case of pressure drop / pressure failure, the arm system remains in it’s previously adjusted position *Action radius 1500mm*
- *Lifting time from lowest to highest position max. 20 sec*
- *Load capacity on **media column** min. 180 kg*
- Power supply from site for electrically-driven lift motor- 230 v & 1-phase

**Equipment Carrier Systems**

**Media Column**

- Height of media column *1000*
- Fitting of installation components possible on 4 sides
- Pivot bearing integrated into media column
- Swivel range 320 - 330 °
- Adaptation to ceiling height via distance tube attached to arm system
- Mounting system for attachment of workplace components, e.g. shelves, drawers, side arms, equipment holders from front side
- Working height of workplace components infinitely variable

- *Set control elements, consisting of 2 handles for comfortable operation of the supply unit*
- *Ergonomically designed handles to support the user positioning the system*
  *Control of all arm functions (e.g. height adjustment, pneumatic brakes) via integrated push buttons*
- *Color coding of control elements adapted to other supply unit components (e.g. joints, keypads) allowing for intuitive operation*
  *Mounting at any front plate of media column possible*
- One-piece front plates without gaps
- Surfaces resistant against disinfectants
- Color of media column: anodized aluminium
- Color of front plates: anodized aluminium

**Installation Components**

**Gas Fittings**

*Media column* equipped with:

- x $O_2$ (oxygen)
- 1 x Air 5 (compressed air 5 bar)
- 1 x VAC (vacuum)
- 1 x $N_2O$ (nitrous oxide)
- 1 x AGSS (Anaesthesia Gas Scavenging System)

**High voltage electrical installation**

*Media head / media column* equipped with: 6 x electrical socket

**Low voltage electrical installation**

*Media column* equipped with:

- 1_ x RJ 45 Socket.
- 1_ x BNC socket.Workstation Components

**CVP-Pole**

- Support tube with height adjustable extension pole
- Length of support tube min. 1000 mm
- Length of extension pole min. 800 mm
- 4 hooks, cross orientation, for accommodation of infusion bottles

**Extension arm for mounting at front rail of Media Column**

- For attachment of a small equipment pole Ø25 mm or CVP-pole
- With locking screw on each swivel joint
- Unrestricted horizontal movement around support tube axis
- Length min. 300 mm
- Load capacity min. 40 kg

**Shelf for mounting at front rail system of Media Column**

- Shelf for attachment to front rail system of previously described media column - 3 nos.
  Surface area 440 x 480 mm (W x D)

Load capacity min. 40 kg
Thickness max. 22 mm

- Material: Aluminium
- Smooth, scratchproof, fade-resistant and antistatic surface.
- No sharp edges and grooves.
- Integrated rubber elements at all 4 edges for injury prevention.
- With curved, ergonomic design.
- Side rails should be provided with each shelf.
- Drawer for mounting at shelf – 1 Pcs.

**Drawer for attachment to shelf, as previously described** Dimensions 440 x 340 x 170 mm (W x D x H)
Load capacity min. 5 kg
Special drawer runner system with exceptionally smooth sliding function self-closing function
Facilitated cleaning by easy removal capability of complete drawer removable front fascia smooth surfaces without protruding handles
Future exchange of front fascia possible due to retro-fit capability

**Pre-installation components**

- **Ceiling fixture set *anchor / bolt* mounting for ceiling supply unit**
- Adaptable on site to height of false ceiling,
- Containing all necessary fixation components, e.g. sub-ceiling flange,
- Distance tubes, reinforcement set, inter-connecting flange

## 21. CEILING SUPPLY UNIT FOR SURGEON

**General Standard of Execution, Regulations**

The corresponding requirements of the European Norm ISO EN 11197 (special requirements for the safety of medical supply units) Medical Device Directive (MDD) 93/42 EEC as well as the relevant rules and regulations of the law for technical work equipment (equipment safety law) and ISO/IEC (see following table) in their valid version must be fulfilled through the following specified equipment.
Qualified vendor must have a Quality Management System acc. to ISO 9001 and ISO 13485 (Medical) in place, as well as a MDD (Medical Device Directive) Annex 2 Section 3 certification

**Individual Standards and Regulations**

| | |
|---|---|
| Standards | Basic requirement of the Medical Device Directive (MDD 93/42/EWG)<br>DIN EN 60601-1 / medical electrical devices<br>DIN EN 60601-1-2 / medical electrical devices<br>DIN EN 793 / medical supply units<br>EN ISO 14071 / medical products – Risk analysis |
| Classification | Class II b acc. MD Directive 93/42/EWG appendix IX<br>UMDNS Code: 18-046 |

DIN/NFPA/HTM standards are permissible. The bidder has to ensure that for whichever standards they are quoting should remain same throughout the system (scope of work).

The equipment must be CE-certified or has got the approval of the European regulatory authority according to MDD.
The quotation must include all facilities and equipment components, including necessary accessories which are required for the functionality of the equipment.
Variations or alternatives to the above-mentioned standards or to the following specified scope of performance must be specifically marked with the abbreviations"Var." or "Alt".

**Scope of Delivery- and Technical Performance**

**Basic Units**
Light Load Arm System
Arm Length *1000+750 mm*
Arm system with two horizontal swivel arms, intermediate bearing and ceiling bearing.
Action radius 1500 mm
Load capacity on **media column** should be. 120 kg
Height of media column approx. 1500mm

**Media Column**

- Height of media column *1500 mm*
- Fitting of installation components possible on 3 sides.
- Pivot bearing integrated into media column.
- Swivel range 320 - 330 °
- Adaptation to ceiling height via distance tube attached to arm system.
- Mounting system for attachment of workstation components, e.g. shelves, drawers, side arms, equipment holders from front side.
- Working height of workstation components infinitely variable on media column.
- Set of control elements, consisting of 2 handles for comfortable operation of the supply unit.
- Ergonomically designed handles to support user for positioning the system.
- One-piece front plates without gaps.
- Surfaces resistant against disinfectants.

**Installation Components**

**Gas Fittings**

*Media head / media column* equipped with:

1_ x CO2 (Carbon Dioxide)
2_ x VAC (vacuum)
1_ x O2 (Oxygen)
1_ x Air (Compressed Air)

**High voltage electrical installation**

*Media column* equipped with: 12_ x electrical 6/16 Amp universal socket.

**Low voltage electrical installation**

*Media column* equipped with:
1_ x RJ 45 Socket.
1_ x BNC socket.

**Workstation Components**

**Shelf for mounting at front rail system of Media Column**

- Shelf for attachment to front rail system of previously described media column - 4 nos.
- Surface area 630 *x 480 mm (W x D)*
- Load capacity min. 20 kg
- Thickness max. 22 mm
- Material: Aluminium
- Smooth, scratchproof, fade-resistant and antistatic surface.
- No sharp edges and grooves.
- Integrated rubber elements at all 4 edges for injury prevention.
- With curved, ergonomic design.
- Side rails should be provided with each shelf.

**Drawer for mounting at shelf – 1 Pcs.**

- Drawer for attachment to shelf, as previously described
- *Dimensions 630 x 480 x 170 mm (W x D x H)*
- *Load capacity min. 25 kg*
- Special drawer runner system with exceptionally smooth sliding function
- self-closing function
- Facilitated cleaning by easy removal capability of complete drawer
- removable front fascia smooth surfaces without protruding handles
- Future exchange of front fascia possible due to retro-fit capability

**Pre-installation components**

**Ceiling fixture set *anchor / bolt* mounting for ceiling supply unit**

Adaptable on site to height of false ceiling,
Containing all necessary fixation components, e.g. sub-ceiling flange,
Distance tubes, reinforcement set, inter-connecting flange

## 22. SURGICAL SCRUB SINK

1. Scrub station should be provided with 3 automatic touch less sensors,
2. Custom made size based on design given,
3. Stainless steel finish class of AISI 304
4. Existing 3 bay surgical scrub sink will be taken under buyback- Surgical Bay Scrub Sink manufactured by Instrumed International India Pvt Ltd- 1 no

## 23. SURGICAL LIGHT DOUBLE DOME LED CEILING MOUNTED

**(a)** The dual dome operating light must be designed for the use in high demanding surgical procedures. State-of-the-art LED bulbs should be used to ensure a low energy consumption and a long service life.

**(b)** Revolving outer handles at the light head should be provided to allow for non-sterile positioning.

**(c)** Light head must be designed with smooth transitions and surfaces, without slots, gaps or exposed screwing to ensure fast and effective cleaning.

**(d)** The light head with streamlined shape is favourable within laminar flow. The light head must be resistant to disinfectant.

**(e)** For visualization of the surgical procedure the light system should be ready to mount with an SD video camera system .

**(f)** For sterile positioning an ergonomic, exchangeable and centrally positioned sterile handle within the light head should be provided.

**(g)** All main joints of surgical light must be provided with unlimited rotation (360°). Light head and suspension must be sealed dustproof.

**(h)** **Classification**

a. Protection class acc. to IEC 60601-1 -
   i. Multipurpose switching power supply - Protection class 1
   ii. Light body – SELV
b. Arm system – IP41

c. Light body – IP42
d. Ventilation and air conditioning Part 4 - DIN 1946-4:2008-12
e. Electrical installation - IEC60364-7-710/VDE0100-710
f. Product design - IEC60601-2-41/IEC60601-1
g. Electromagnetic compatibility (EMC) - IEC 60601-1-2
h. Classification as per EC Directive 93/42/EECAnhang IX - Class I
i. IP class for suspension system and UMNDS code for the lights as 12-347/12-282 (OR Lights) and 16-793 (Suspension System)

**(i)** The surgical light should be complete with all components for ceiling mount and electrical feed-in, incl. finalised installation.

**(j)** Technical data for main dome:

| | | |
|---|---|---|
| i. | Central illumination intensity Ec | 160.000 lux |
| ii. | Light field diameter adjustable | 220 mm to 290 mm |
| iii. | Focusing | mechanically |
| iv. | Depth of illumination L1+L2 | 1100 mm |
| v. | Average Color rendering index Ra | 93 |
| vi. | Color rendering index R9 (red) | 94 |
| vii. | Color temperature more than | 4500K |
| viii. | Central illumination at 1m distance with: | |
| | I. Tube | 99% |
| | II. one mask: | 70% |
| | III. tube and one mask: | 70% |
| | IV. two masks: | 50% |
| | V. tube and two masks: | 50% |
| ix. | Total illumination intensity of a double light combination | <1000 W/m² |
| x. | Energy efficiency Ee - | 540 W/m² |
| xi. | Ee/Ec ratio - | 3.4 m W/m² x lux |
| xii. | Photometric radiation equivalent - | 280 lm/W |
| xiii. | Adjusting the illumination intensity | 36 % to 100 % |
| xiv. | Light-emitting surface | 3866 cm² |

| | | |
|---|---|---|
| xv. | Bulb efficiency | 60 lm/W |
| xvi. | Total nominal power of all LED bulbs | 108 W |
| xvii. | Maximum power consumption per light | 200VA |
| xviii. | Supply voltage | 100-240V 50/60 Hz |
| xix. | Light head supply voltage | 24V/DC |
| xx. | Rotation Radius | 360° |
| xxi. | Lifetime of light sources | 30000 h |

**(k)** Technical data for Satellite dome:

| | | |
|---|---|---|
| i. | Central illumination intensity Ec | 160.000 lux |
| ii. | Light field diameter adjustable | 220 mm to 290 mm |
| iii. | Focusing | mechanically |
| iv. | Depth of illumination L1+L2 | 1100 mm |
| v. | Average Color rendering index Ra | 93 |
| vi. | Color rendering index R9 (red) | 94 |
| vii. | Color temperature more than | 4500K |
| viii. | Central illumination at 1m distance with: | |
| | I. Tube | 99% |
| | II. one mask: | 70% |
| | III. tube and one mask: | 70% |
| | IV. two masks: | 50% |
| | V. tube and two masks: | 50% |
| ix. | Total illumination intensity of a double light combination | <1000 W/m² |
| x. | Energy efficiency Ee - | 540 W/m² |
| xi. | Ee/Ec ratio - | 3.4 m W/m² x lux |
| xii. | Photometric radiation equivalent - | 280 lm/W |
| xiii. | Adjusting the illumination intensity | 6 % to 100 % |
| xiv. | Light-emitting surface | 3866 cm² |
| xv. | Bulb efficiency | 60 lm/W |
| xvi. | Total nominal power of all LED bulbs | 108 W |

| | | |
|---|---|---|
| xvii. | Maximum power consumption per light | 200VA |
| xviii. | Supply voltage | 100-240V 50/60 Hz |
| xix. | Light head supply voltage | 24V/DC |
| xx. | Rotation Radius | 360 |
| xxi. | Lifetime of light sources | 30000 h |

**(l)** Technical data for Camera

| | | |
|---|---|---|
| a. | Completely capsuled camera housing with smooth surfaces | |
| b. | Camera housing: anodised aluminium (impact resistant) | |
| c. | Surface resistant to disinfectant | |
| d. | Internal, non visible cabling | |
| e. | Frame chip | 1/4“ CCD-chip |
| f. | TV standard | PAL |
| g. | Resolution pixel | 752(H)x582(V) |
| h. | Signal to noise ratio | >50 dB |
| i. | Minimum Illumination | 0,1-1,5 lux |
| j. | Focal length | f=4,2 - 42,0 |
| k. | F No. | F=1,8 - 2,9 |
| l. | Auto Shutter | 1/1 -1/10.000 s |
| m. | in xx steps | 22 steps |
| n. | Zoom | 40-fold |
| i. | thereof optical | 10-fold |
| ii. | thereof digital | 4-fold |
| iii. | Automatic white balance | yes |
| o. | Horizontal resolution | 460 TV lines (WIDE end) |
| p. | Video Output | 1 x S-Video |

Existing OT Lights will be taken under buyback. Following OT Lights are under buyback:

1. Surgident make- ceiling 2 dome- 1 no
2. Kohinoor make- ceiling 2 dome- 2 no
3. Medequip, M Shah & CO Make- ceiling fixed -1 no
4. Portable OT Light- 3 nos

## 24. TRI AXLE SURGICAL LIGHT LED

LED Surgical Lighting System with one dedicated Spring-Arm Suspension for Progressive Scan HD Flat Panel with an Integrated In-Light Camera System.

OT Light system should have the following technical specifications:

**(a)** The dual dome operating light must be designed for the use in high demanding surgical procedures. State-of-the-art LED bulbs should be used to ensure a low energy consumption and a long service life.

**(b)** Revolving outer handles at the light head should be provided to allow for non-sterile positioning.

**(c)** Light head must be designed with smooth transitions and surfaces, without slots, gaps or exposed screwing to ensure fast and effective cleaning.

**(d)** The light head with streamlined shape is favourable within laminar flow. The light head must be resistant to disinfectant.

**(e)** For visualization of the surgical procedure the light system should be ready to mount with an SD video camera system .

**(f)** For sterile positioning an ergonomic, exchangeable and centrally positioned sterile handle within the light head should be provided.

**(g)** All main joints of surgical light must be provided with unlimited rotation (360°). Light head and suspension must be sealed dustproof.

**(h) Classification**

I. Protection class acc. to IEC 60601-1 -
   a. Multipurpose switching power supply - Protection class 1
   b. Light body – SELV
II. Arm system – IP41
III. Light body – IP42
IV. Ventilation and air conditioning Part 4 - DIN 1946-4:2008-12
V. Electrical installation - IEC60364-7-710/VDE0100-710
VI. Product design - IEC60601-2-41/IEC60601-1
VII. Electromagnetic compatibility (EMC) - IEC 60601-1-2
VIII. Classification as per EC Directive 93/42/EECAnhang IX - Class I
IX. UMDNS-Code (Universal Medical Device Nomenclature System ) - 12-347/12-282/ 16-793 (Suspension system)

**(i)** The surgical light should be complete with all components for ceiling mount and electrical feed-in, incl. finalised installation.

**(j)** Technical data for main dome:

I. Central illumination intensity Ec - 160.000 lux
   a. Light field diameter adjustable-220 mm to 290 mm
   b. Focusing mechanically
   c. Depth of illumination L1+L2 - 1100 mm
   d. Average Color rendering index Ra 93
   e. Color rendering index R9 (red) 94
   f. Color temperature more than 4500K

II. Central illumination at 1m distance with:
   a. Tube 99%
   b. one mask: 70%
   c. tube and one mask:70%
   d. two masks: 50%
   e. tube and two masks: 50%
III. Total illumination intensity of a double light combination <1000W/m²
IV. Energy efficiency Ee - 540 W/m²
V. Ee/Ec ratio - 3.4 m W/m² x lux
VI. Photometric radiation equivalent - 280 lm/W
VII. Adjusting the illumination intensity 36 % to 100 %
VIII. Light-emitting surface 3866 cm²
IX. Bulb efficiency 60 lm/W
X. Total nominal power of all LED bulbs 108 W
XI. Maximum power consumption per light 200VA
XII. Supply voltage 100-240V 50/60 Hz
XIII. Light head supply voltage 24V/DC
XIV. Rotation Radius 360°
XV. Lifetime of light sources 30000 h

**(k)** Technical data for Satellite dome:
I. Central illumination intensity Ec 160.000 lux
   a. Light field diameter adjustable 220 mm to 290 mm
   b. Focusing mechanically
   c. Depth of illumination L1+L2- 1100 mm
   d. Average Color rendering index Ra 93
   e. Color rendering index R9 (red) 94
   f. Color temperature more than 4500K
II. Central illumination at 1m distance with:
   a. Tube 99%
   b. one mask: 70%
   c. tube and one mask: 70%
   d. two masks: 50%
   e. tube and two masks: 50%
III. Total illumination intensity of a double light combination <1000 W/m²
IV. Energy efficiency Ee - 540 W/m²
V. Ee/Ec ratio - 3.4 m W/m² x lux
VI. Photometric radiation equivalent - 280 lm/W
VII. Adjusting the illumination intensity 6 % to 100 %
VIII. Light-emitting surface 3866 cm²
IX. Bulb efficiency 60 lm/W
X. Total nominal power of all LED bulbs- 108 W
XI. Maximum power consumption per light- 200VA
XII. Supply voltage 100-240V 50/60 Hz
XIII. Light head supply voltage 24V/DC
XIV. Rotation Radius 360
XV. Lifetime of light sources 30000 h

**(l)** Technical data for Camera
a. Completely capsuled camera housing with smooth surfaces
b. Camera housing: anodised aluminium (impact resistant)
c. Surface resistant to disinfectant

d. Internal, non visible cabling
e. Frame chip 1/4“ CCD-chip
f. TV standard PAL
g. Resolution pixel 752(H)x582(V)
h. Signal to noise ratio >50 dB
i. Minimum Illumination 0,1-1,5 lux
j. Focal length f=4,2 - 42,0
k. F No. F=1,8 - 2,9
l. Auto Shutter 1/1 -1/10.000 s
m. in xx steps 22 steps
n. Zoom 40-fold
   i. thereof optical 10-fold
   ii. thereof digital 4-fold
   iii. Automatic white balance yes
o. Horizontal resolution 460 TV lines (WIDE end)
   Video Output 1 x S-Video

## 25. HD FLAT PANEL SUSPENSION SYSTEM

26” HD Progressive Scan Flat Panel Monitor in Tandem Mount

**Description :** It should be 26” High Definition Progressive Scan Flat-panel Monitors with ceiling mounted spring arm suspension in tandem-mount to support high-definition/HDTV progressive Scan images and should be able to support and display DVI/HDTV, RGBHV, S-Video, Composite video signals.

The flat Panel suspension should be ready with the cables for integration of High Definition Digital (DVI/HDTV), RGBHV( High Resolution), SVHS(S-Video), Composite video signals to travel from the various sources of video like endoscopic camera, room camera, in light camera, high definition flat panel monitors, while assuring native resolution / signal.

## 26. HD FLAT PANEL

**OR INTEGRATION - FULL HIGH-DEFINITION 26” MEDICAL GRADE LCD MONITOR**

The 26” WUXGA full HD LCD monitor will be equipped with advanced technology to provide optimized image performance in endoscopic and surgical procedures. Such medical-grade display device will have the following technical features :

- Technology : a-Si TFT Martix
- Resolution : 1920 X 1200 (WUXGA)
- Aspect Ratio : 16 : 10
- Contrast Ratio : 1000 : 1
- Viewing Angle : 178 Degrees (Horizontal & Vertical)
- No. of Colors : 16.8 Million
- Processor : 10-bit 3D Look-up-table based Image Processor
- Dual channel image display with built-in Picture-In-Picture (**PIP**) and Picture-Out-Picture (**POP**)

- Adjustable Scanning Modes : Vertical, Horizontal, Full Screen etc.
- Display Modes : 180 degree rotation & mirror display feature.
- 10 Pre-selected & 20 User-customizable settings at the touch of a button.
- Complete centralized control of the LCD monitor through the centralized Touch Screen.

- **Multiple Video Inputs** :
  - Composite Video
  - Y/C
  - Analog RGB+EXT-Sync
  - HD-15
- **Multiple Video Outputs** :
  - HD/SD-SDI (X2)
  - Composite Video
  - Y/C
  - Analog RGB+EXT-Sync
  - HD-15

## 27. INLIGHT SURGICAL CAMERA

28. Completely capsuled camera housing with smooth surfaces
29. Camera housing: anodised aluminium (impact resistant)
30. Surface resistant to disinfectant
31. Internal, non visible cabling
32. Frame chip 1/4“ CCD-chip
33. TV standard PAL
34. Resolution pixel 752(H)x582(V)
35. Signal to noise ratio >50 dB
36. Minimum Illumination 0,1-1,5 lux
37. Focal length f=4,2 - 42,0
38. F No. F=1,8 - 2,9
39. Auto Shutter 1/1 -1/10.000 s
40. in xx steps 22 steps
41. Zoom 40-fold
    1. thereof optical 10-fold
    2. thereof digital 4-fold
    3. Automatic white balance yes
42. Horizontal resolution 460 TV lines (WIDE end)
43. Video Output- 1 x S-Video, HD

    Such Light Integrated Camera should have a control through Touch Panel of the control equipment placed inside the operating room at documentation station / nurse works station.”

## 44. OPERATING ROOM INTEGRATION SYSTEM

**Description :** The system should act as central connection point for all audio/video/data communication within the operating room wherein it manages multiple video types & information exchange while offering device control from the same touch-panel and should enable display of any image from any source to any destination in the operating room or outside the operating room. Such central control system should be FDA approved & bears a specific international recommendation to be operated inside an operating room with a temperature variance ranging from 5 – 40$^{o}$ C & up to a Relative humidity of 85% while complying at the same time with the international medical standards.

**Control:**

It should have 1 (one) 19" touch screen at Documentation Station / Nurse's Work Station.

It should provide one touch video conferencing and Medical Device Control from the touch screen.

It should allow multiple PC viewing for the use of at least two PC applications (e.g PACS, HIS) on the touch screen/Monitors in the sterile field.

It should have ability to control flat panel monitors, 3-chip High Definition Endoscopic Camera, Room Cameras and other devices connected to the network in the OT from touch-screen in nursing control panel.

It should be able to integrate PTZ room cameras, OT light Integrated Camera, C- Arm, Ultrasound, Microscope and all other medical video sources in the operating room with their highest native output.

This Central Control system should provide 16 universal RS-232 control ports to control High Definition Flat Panel Monitors, Room Cameras etc.

It should have a dual audio channel voice device activation technology in order to provide simultaneous voice control of the devices connected in the network inside an operating room.

**Video:**

System should be capable of routing following signal types, while assuring native signal:

1. High Definition Video Signal – DVI-I (6 Inputs X 8 Outputs).
2. High Resolution Video Signal – RGBHV (12 Inputs X 14 Outputs).
3. SVHS (S-video) Video Signal – SVHS (12 Inputs X 14 Outputs).
4. Composite – BNC (2 Inputs X 2 Outputs)

The system should have at least 2 auxiliary (Aux) ports to provide easy access to the additional equipment & should be able to provide 300 presets.

It should be able to provide Picture – in – Picture on any monitor within the OT connected to the central system.

It should have VGA I/Os to allow for integration with all PCs (PACS, Haemodynamic Images, Image Guided Surgery, Navigation, Laptop, etc).

All the High Definition routing inside an operating room from an image acquisition source to image display device should be through a fibre optic network to ensure minimum data loss while maintaining the integrity of the native High Definition signals.

**Audio:**

It should have at least 8 x 8 audio mixer system with two room speakers.

**Video Conferencing :**

It should be able to integrate with a codec for ISDN/IP videoconferencing from the sterile field with a minimum connectivity of 2Mbps per network. Videoconferencing would be in HD with multipoint.

**Remote Trouble-shooting :**

It should be capable of remote diagnostic & live-online support for signal routing & trouble shooting through remote login.

***Such Central Control System should have a technology for easy future upgrades & compatibility with most of the existing medical devices.***

## 45. DIGITAL HIGH DEFINITION DOCUMENTATION SYSTEM

The High-Definition Information Management System will be a high-end computer system based on Windows Embedded OS platform (for security purposes) designed specifically for seamless recording, management, editing & archiving of surgical images and video sequences in full HD resolution. The captured high-definition images & videos can be accessed from the large-capacity hard drive for printing or saving onto multiple forms of external media which includes Blu-ray/DVD, USB Flash Drive & network.

The system will be capable of integration with the Central Control System in an integrated room environment in such a way that the central control system is capable to control the operation & route any running high-definition surgical videos, which is being recorded in it, onto any display device in an integrated operating room environment.

Such system will have a Dual-Channel full high-definition simultaneous video capturing, recording & editing capability through a touch screen intuitive interface. Alternatively, in the event of non-availability of a dual channel HD recording device, two single channel units can be offered together.

It will have at least 1TB internal Hard Disk Drive (HDD) for in-system archiving. Also, it will have a feature of real time in-procedure recording capability besides at-the-end procedure DVD burning.

It will be capable of connecting to a printer (thermal also) for printing the captured images in a custom report format.

Will be capable of offering real time high-end MPEG – 4 AVC/H.264 compression engine for video recording for proven superior compression efficiency.

Will have at least the following video inputs

a) Y/C - 2 nos.

b) DVI – 2 No.s

c) HD/SD-SDI (SMPTE292M) – 2 No.s

Will have at least the following video outputs

a) Composite Video – 1 No

b) Y/C - 1 No

c) DVI – 1 No

Will be able to capture: Analog (640 x 480 image of room camera, inlight camera, C arm, Ultrasound etc.), Hi-Res (1024 X 768 image of 3 chip camera, PACS PC etc.), and High Definition (1920X1080 image from 3-chip HD Endoscopic Camera etc. Such a system will have at least two USB 2.0 ports for connection to external HDD, USB Printer, Barcode Reader etc.

Will have Stereo audio Input for advanced voice tagging feature.

Such a system will also offer a simple video editing capability for easy separation, splicing & deletion of unnecessary parts within a stored video sequence from the on-console touch screen itself.

Will be capable of offering an easy way to input patient data viz. demographic, clinical & diagnostic details & in-turn linking the same to the stills & video sequences planned to be archived into a folder format for efficient information management from the touch screen.

Will support file formats for :

- **Images**: Bitmap (BMP), JPEG, Tagged Image File Format (TIFF)
- **Videos**: MPEG-4 AVC/H.264

Will have the following multiple control options:

a) Wireless Infrared Remote Control,

b) One touch Camera Head Triggering through programmable endoscopy camera head buttons,

c) Touch Control through Central Touch Panel in an Integrated Room environment,

d) On-console 7” LCD Touch Screen Control.

e) Keyboard / Footswitch.

**Network Integration** : System will be capable of integration to the FTP / CIFS / DICOM (C-Store) Servers.

**International Medical Certifications** :

- Class I protection against the Electrical Shock.
- Ordinary Water Ingress Protection.
- Mode of Operation – Continuous
- EMC Directive 2006/95/EC
- EMC Directive 2004/108/EC for Electromagnetic Compatibility

- IEC 60601-1-2 : 2001; CISPR 11
- IEC 60601-1-2 : 2007; Group 1, Class B
- IEC 61000-3-2 : Class A

## 46. OPERATING EQUIPMENT INTEGRATION SYSTEM

The operating room control system will be a sophisticated solution providing one-touch centralized control of all connected surgical, non-surgical & peripheral equipments from within the sterile and/or non-sterile field for greater efficiency & improved ergonomics during surgical procedures in an operating suite. Such advanced state-of-the-art control system will offer an intuitive operation enabling the clinical staff to easily select the desired function using either a 19" touch screen or voice control to help decrease turnaround time & improve workflow. Operating Room Control system will have the following important features :

- Intuitive Icon-based Graphical User Interface (**GUI**) on central 19" Touch Screen for easy operation & monitoring.
- Any connected equipment viz. insufflator, endoscopy camera, electrosurgical generator, surgical lights, operation table, recording modules etc. can be controlled via.
    - 19" Touch Panel in the sterile field.
    - Supplementary touch panel in the non-sterile workstation (optional).
    - Voice activation through a wireless headset.
    - Programmable remote switches on the endoscopy camera head in sterile field.
- Real-time display of parameters of the connected equipment on to the central touch screen.
- Display of various error / warning messages & voice error commands related to the connected equipment.
- Customization of the contents of the display on the central touch screen in specific relation to the real-time parameters of the connected equipment depending upon the operating surgeon's preferences. Such custom OR settings are transferable on to a USB drive for copying on to another system controllers.
- System registration & recall of custom presets on a per-procedure basis for the connected equipment(s) through a one-touch central operation contributing towards valuable in-between procedure time savings in equipment preparation for the specific surgical interventions.
- Password-protected secured system login to prevent unintentional usage.
- The system should include one high grade standard definition room monitoring camera also with motorized Pan/Tilt/Zoom feature. Such camera system should be controllable by the central operating system touch screen.
- Provision to connect at least 12 equipments for centralized control. Incase more than 12 equipments are desired to be connected then the system will be able to offer an extension module to connect more such equipment for the centralized control.
- The system will be capable of fetching the patient information / index entered into the Full HD video processing module through a keyboard supplied as an accessory to prevent dual information entry.

  The system will have the following important technical characteristics :

- **Control Signal :** Serial Data Transmisión
- **Control Ports :** At least 4 USB ports
- **Supply :** ***Input*** - 100-240 VAC @ 50-60Hz.
  ***Power*** - Max. 180 VA (Unit)
  - 48 VA (19" Touch Screen)

- **International Certifications** :
  - Directive 93/42/EEC; Class II b
  - IEC 60601-1-2 : 2001
  - IEC 60601-1-2 : 2007
  - European Directive 2002/96/EC
  - CISPR 11 of emission : Group 1, Class A.

## 47. MONITORING PTZ ROOM CAMERA SYSTEM

A room camera should be a compact all in one network monitoring solution with its Pan/Tilt /Zoom (PTZ capabilities & server functions combined into one body. IT should have the capability to distribute live videos from any location where it is installed & can be controlled remotely over the network & ensures high color-fidelity & fast auto focusing.

Room camera should have at least 2 nos. each of composite & SVHS Video output signals and should be having a universal control RS - 232 interface potr.

It should have at least 18 X optical power zoom & 12 X digital zoom

It should have a Pan coverage at least 340 degree & a total Tilt coverage of at least 100 degree (which includes up coverage up coverage of at least 10 degree & Down coverage of at least 90degree)

## 48. HIGH DEFINITION CAMERA SYSTEM WITH XENON LIGHT SOURCE, 3 CHIP CAMERA HAVING RESOLUTION OF 1920X1080P, LIGHT CABLE, HD VIDEO IMAGING CAPTURING DEVICE WITH HD MEDICAL GRADE MONITOR

**Camera Head:** 3 CCD, Magnification ratio :2x, Focal Length- 15mm to 30 mm, Camera Head should be autoclavable.

**Camera System**

60Hz settings are displayed first. (50Hz settings follow in parentheses.)

Imaging System : 1/3" Progressive Scan CCDs High Definition

Scanning System

| | | |
|---|---|---|
| Horizontal | : | 64.00 kHz (60.00 kHz) |
| Vertical | : | 60.02 Hz (50.00 Hz) |
| Video Outputs (Digital/Analog) | : | Two Digital Video Interface (DVI)/RGBHV |
| 1280 × 1024 (HD), 720p, 1080p | | |
| (HDTV) format | | |
| Connector | : | 29-pin DVI-I/DVil-D |
| Y/C | : | One S-VHS |
| Connector | : | 4-pin mini-DIN |
| Digital Fiber | : | HD, HDTV (R, G, B, Clk) |
| Connector ferrules | : | Four Lucent fiber connectors with 1.25 mm |
| Connector | : | 20 pin Display port. |
| Mounting coupler | : | Endoscope eyepiece used with C-mount |

C-mount camera head used with C-mount scopes (C-mount coupler/scope thread: 1-32" UN 2A)

| | | |
|---|---|---|
| Auto Shutter Range | : | 1/60 (1/50) – 1/50,000 second |
| Operating Conditions | | |
| Temp. | : | 5 – 40°C |
| Relative Humidity | : | 30 – 95% |
| Transport and Storage Conditions | | |
| Temperature | : | -10 – 60°C |
| Relative Humidity | : | 10 – 75% |
| Atmospheric Pressure | : | 700 – 1060 hPa |
| Input Electrical Ratings | : | 100 – 240VAC ± 10% (0.6A) @ 47 – 63Hz |
| Cable | | |
| Camera Head to Console | : | 10.3 ' (3.15 m) sealed cable |
| Enhancement | : | 16 levels (Switchable) |

| | | |
|---|---|---|
| Classification | : | Class I Equipment |

Type BF Applied Part

Water Ingress Protection, IPX0-Ordinary Equipment

Continuous Operation

Medical Safety Standards

IEC 60601-1:1988 + A1:1991 + A2:1995

IEC 60601-2-18:1996 + A1:2000

CAN/CSA C22.2 No 601.1-M90

UL 60601-1:2003

AS/NZS 3200.1.0:1998

CSA 22.2.601.1.1:2002

CAN/CSA C22.2 No. 601.2.18:1990

| | | |
|---|---|---|
| Medical EMC Standard | : | IEC 60601-1-2:2001 + A1:2004 |
| Laser Product Standards | : | Class 1 Laser Product |
| | | Contains four 850-nm laser diodes |

Complies with IEC 608251:1993+A1:1997+A2:2001.

Complies with 21CFR, Subchapter J, Parts 1040.10 & 1040.11, except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001.

**Light Source**:

| | |
|---|---|
| Electrical | Primary: 100 - 240 VAC, 50/60 Hz, 300 W |
| Fuses (2) | 5.0A 250V |
| Working Life of Xenon Lamp | 500 hrs |
| Fiber optic Cable Range | 2 mm to 6.5 mm diameter |
| Operating Conditions | 10 to 40°C |

30 to 75% Relative Humidity

| | |
|---|---|
| Transportation & Storage | 5 to 40°C |
| | 30% to 95% Relative Humidity |
| | 700hPa to 1060hPa |

Classifications & Approvals Complies with medical safety standards:

IEC 60601-1:2005 CAN/CSA C22.2 No.601.1-M90

UL 60601-1: 2003

Complies with medical EMC standard:

IEC 60601-1-2:2001

Class 1 Equipment

Type CF applied parts

Water Ingress Protection, IPX0 — Ordinary Equipment

Continuous Operation

**Fiber Optic Light Cable**:

Dimensions 5.0mm X 10ft Fiber Optic Light Cable

## 49. POLYCOM FOR VIDEO CONFERENCING

Necessary cabling and integration for video conferencing inside the hospital campus as well as with other Hospitals outside the campus.

## 50. INTERNAL CABLING

## 51. STRETCHERS

- The transport stretcher should assist in safe and efficient transport of patients in a hospital
- Overall length of at least 210 cm
- Overall width of at least 76 cm
- The stretcher should have weight bearing capacity of 200 kgs or more
- The height of the stretcher should be adjustable hydraulically with the help of dual pedestal hydraulics and should have a low height of 55cm and a high height of at least 90cm
- Hands free Trendelenburg and reverse Trendelenburg of 18°
- The back rest should be adjustable with pneumatic cylinders, and should offer adjustability from 0° to 90°
- Roller bumpers on all corners for safety during transport
- Fold down full length side rails of dimension of 33x140cm should provide security to patient while transport
- Retractable fifth wheel to assist in maneuverability of the stretcher
- The castors should be of 20cm diameter to aid in transport of stretcher
- Central locking brake and steer controls at head and feet end

- The mattress should be of vinyl and with thickness of 8cm and 66X192 cm patient surface
- The stretcher should have integrated storage space for oxygen cylinder and should be supplied with upright oxygen bottle holder and foldable IV pole
- The stretcher should conform to ISO 13485:2003 standards
- CE marked and FDA approval is required

## 52. MEDICAL GAS PIPELINE SYSTEM

Dismantling existing Medical Gas Pipeline System with Supply, installation and commissioning of Centralized Medical Gas Supply System consist of following:

1. Oxygen supply system
2. Nitrous Oxide supply system
3. Carbon Di Oxide Supply System
4. Medical air plant
5. Vacuum plant
6. Area control unit
7. Terminal unit
8. Distribution system

The bidder is free to bid for any of the following standards i.e DIN/NFPA/HTM but has to ensure that all medical gas system equipments of the same standard only. The bidder has to upload the conformance certificate of the relevant standard.

Technical Specification for Centralized Medical Gas Supply System:

**1. <u>Oxygen Supply System</u>**

Consists of following

- **Control Panel for Oxygen** Fully automatic control panel with flow capacity of minimum 790 LPM for regulating and controlling the central supply with medical gases from cylinder manifolds and liquid gas tanks / Oxygen Generator in hospitals:
- The control panel should fulfill all requirements of DIN EN ISO 7396-1 and have CE-certification (device class – II b) in accordance with the European Directive 93/42/EEC (medical devices).
- The medical oxygen can be supplied either via cylinder manifolds or a liquid gas tank.

  The typical configuration for central gas supply systems is in accordance with DIN EN ISO 7396-1 & consists of 3 supply sources.
- The control panel should able to regulate and control either

  3 cylinder manifolds, 2 of which serve as a main source and one as a reserve

  Or
- A combination of a fluid gas tank and 2 cylinder manifolds, whereby the gas tank serves as the main source and the two cylinder manifolds as a reserve.
- Pressure reducers should be flame proofed and certified by an authorized certification agency, and specially certified for medical gases such as oxygen and nitrous oxide.

- For the change-over between the two active cylinder manifolds, the control panel should have a pneumatic-controlled reversing valve. The change-over to the respective other side must occur fully automatic, once the active side of the cylinder manifold runs empty. In accordance with DIN EN ISO 7396-1, an alarm signal, which is integrated into the control panel, should send an audible and visual message that the cylinder change needs to take place. After the cylinder change, the switch-over should only take place after the currently active side has run completely empty.
- In case of a main source failure of the left and right side of the cylinder manifold, the third source supply must be guaranteed.
- It should ensure that all service and maintenance work can be done without interrupting the gas supply. For service personnel to have unrestricted access to the switching unit from all sides, the hood of control station should be removable.
- The control unit, integrated into the control panel should monitor all pressures of the active and passive gas sources, which are necessary for the safe and uninterrupted system operation.
- If a pressure parameter deviates significantly from the respective nominal pressure, an alarm should be activated immediately, to ensure that disturbances in the system are recognized.
- Recording of all alarm messages including the date of occurrence for each message should be possible
- Control panel should provide following displays.
    - display of system pressure
    - display of gas flow
    - display of currently active source
    - online checklist for the cylinder change
    - range calculation for the active source
- The intended room temperature of 10 to 40° C in the central supply system, which is in accordance with DIN EN ISO 7396-1, should also be monitored by the control unit and deviations should be reported.

**2. <u>N2O Supply System (CO2 Supply System will be similar)</u>**

Consists of following

**Control Panel for Nitrous Oxide** Fully automatic control panel with flow capacity of 50 LPM for regulating and controlling the central supply of N2O:

- The control panel must fulfill all requirements of DIN EN ISO 7396-1 and must have CE-certification (Device class – II b) in accordance with the European Directive 93/42/EEC (medical devices).
- The typical configuration for central gas supply systems is in accordance with DIN EN ISO 7396-1 & consists of 3 supply sources.
- Control panel should have fully automatic, pneumatic controlled switch-over from the primary to the secondary cylinder bank.
- Pressure reduction should take place in two stages.
- Supervision of pressure should be monitored by 2 pressure switches with potential-free contacts.
- Continuous operation should be guaranteed even during service and maintenance via gas specific emergency inlet of control

- Pressure reducers should be, flame proofed by an authorized certification agency, and specially certified for medical gases such as oxygen and nitrous oxide.
- For the change-over between the two active cylinder manifolds, the control panel must contain a pneumatic-controlled reversing valve. The change-over to the respective other side must occur fully automatic, once the active side of the cylinder manifold runs empty. In accordance with DIN EN ISO 7396-1, an alarm signal, which is integrated into the control panel, must send an audible and visual message that the cylinder change needs to take place. After the cylinder change, the switch-over can only take place after the currently active side has run completely empty.
- In case of a main source failure of the left and right side of the cylinder manifold, the third source supply must be guaranteed.
- It has to be ensured that all service and maintenance work can be done without interrupting the gas supply. For service personnel to have unrestricted access to the switching unit from all sides, the hood must be removable
    - The control unit, integrated into the control panel should monitor all pressures of the active and passive gas sources, which are necessary for the safe and uninterrupted system operation.
    - If a pressure parameter deviates significantly from the respective nominal pressure, an alarm is activated immediately, to ensure that disturbances in the system are recognized.
    - Recording of all alarm messages including the date of occurrence for each message.
    - Control panel should provide following displays.
        - display of system pressure
        - display of gas flow
        - display of currently active source
        - online checklist for the cylinder change
        - range calculation for the active source
    - The intended room temperature of 10 to 40° C in the central supply system, which is in accordance with DIN EN ISO 7396-1, should also be monitored by the control unit and deviations should be reported.

**3. Manifold for oxygen, CO2 & N2O**

**High pressure collecting pipes**

- High pressure collecting pipes must be provided with integrated non-return valves for connection of gas cylinders on the left and right cylinder bank side.
- Collecting pipes should have box nut and connector G 3/4 for extension and combinations as required.
- High pressure non-return valves must be fitted so that backflow during change of separate gas cylinders cannot occur.
- Collecting pipes should be covered by screen, including brackets and fixing material, gas type labeling,
- Flame proofed by an authorized agency viz BAM (Federal Institute for Material Research and Testing), design acc. to EN ISO 7396-1.

**High pressure Connecting Bends**

- High pressure Connecting Bends for connection between gas cylinder and collecting pipe should be as per cylinder requirement.

- High pressure connecting bend must be provided with manual connection, made of copper pipe 8x1.5mm, brass connections with washers and must be suitable for both left or right-hand side of the cylinder bank.
- High pressure connecting bends must be provided with gas type specific and manufacturer specific marking acc. to EN ISO 7396-1.

**4. Compressed Air Plant**

- Main components of Medical Air Plant must have 2 piston compressors in compact super sound absorbing tower design complete with all required cooling, control and monitoring facilities for operations in system with 2 compressors, a control panel, 1 air receivers, 2 Dryer and filtration unit - 5-stage conditioning systems with filters and adsorption dryer and a pressure reducer station. The pressure reducing station should provide two outputs one at 4 bar and one at 7 bar. The produced air must be for medical use according to the European Pharmacopoeia as following. Each compressor should have FAD of 780 LPM. Compressor should be equipped with suction filter, suction regulator for no load start.
    - Carbon dioxide – 500ppm, carbon monoxide – 5ppm, oil – 0.1mg/cubic meter, sulpher dioxide – 1ppm, Nitric oxide – 2ppm, nitrogen dioxide – 2ppm, water – 67ppm / ca.- 29.4, contamination – Limit values according to the European Pharmacopoeia 4. Version.7 supplement.
- Each compressor should be an autonomous compressed air source that should be able to supply 100% of the hospitals demand in case of emergency. Each compressor should have an integrated control panel. The compressor must work on, even if the super ordinate control fails and must initiate alarm.
- The air receiver's capacity should be 1000 litre with operating pressure of 16 bar.
- The air purification systems must reduce the air humidity to very low dew points (-40ºC) to prevent condensate in the piping system and allow the filter system to achieve the air quality according to the European Pharmacopoeia.
- The pressure reducer stations must provide constant line distribution pressure for breathing systems and surgical tools, related to flow requirement.

**Control panel for Air compressor plants**

- The compressors must be controlled by a central control panel. The programmable control unit (SPS) must monitor the operational pressure and must switch the compressors as needed, control panel for air compressors must guarantee constant load of operation hours for each compressor and it must count the operation hours.
- The settings for the pressure switching levels should be settable from the front menu using the keys and display at the front panel.
- The panel should also contain the energy supply for the plant, terminals for all alarm signals of the plant and an additional manual pressure switch for emergency operation.

**Content of control panel for air compressor plant :**

- Box made of sheet steel for wall mounting, lockable with security lock.
- Cable entry from below.
- Equipped with input and output terminals for the power supply, the motors and the alarm signals.
- Fuse accessories and replacement fuses.
- Documentation acc. to DIN 40719 and DIN 40700 in a bag at the inside of the door.

**5. Medical vacuum Plant**

- Main components of Medical vacuum Plant must have 2 rotary vane type vacuum pumps directly driven by motor, a control panel, 1 vacuum receivers, secretion Trap and bacteria filter.
- The vacuum pumps must be built with three vacuum sources. Every vacuum pump should be an autonomous vacuum source that will be able to supply 100% of the hospitals demand in case of emergency. Each pump should have FAA of 460 LPM at 450mmHg.
- Bacteria Filter should have absorption capacity of 99.97 % with 0.2 – 0.5 microns particle size
- The vacuum pumps must work on, even if the super ordinate control fails and must initiate alarm.
- The vacuum receiver's capacity (1000 lpm) must relate to the pumps output to comply with the hourly stop and start ratio and produce steady flow.

**Control panel for Vacuum plants**

- The vacuum pumps must be centrally controlled by a control panel. The programmable control unit (SPS) must monitor the operation vacuum and must switches the vacuum pumps as needed, control panel for vacuum pump must guarantee constant load of operation hours for each pump and it must count the operation hours.
- The settings for the vacuum switching levels are made menu driven using the keys and display at the front panel.
- The panel should also contain the energy supply for the plant, terminals for all alarm signals of the plant and an additional manual vacuum switch for emergency operation.

**Content of control panel for vacuum plant:**

- Box made of sheet steel for wall mounting, lockable with security lock.
- Cable entry from below.
- Equipped with input and output terminals for the power supply, the motors and the alarm signals.
- Fuse accessories and replacement fuses.
- Documentation acc. to DIN 40719 and DIN 40700 in a bag at the inside of the door.

**6. Area control unit**

Area control and shut-off unit for medical gases must be according. to EN 737-3 and ISO EN 7396 - 1. Delivery of unit must be in two separate assembly groups according to pre-assembly and final assembly.

**Pre-assembly**:

- Bottom part of box must be corrosion-resistant, made of stainless steel. The fitting dimensions suitable for unhindered installation in lightweight partition walls. In fully equipped condition (5 gases) width of area control unit must not exceed from 50 cm.
- Installation box for flush installation must be protected through a plaster shield. In addition, the potential for surface installation must be given.
- Valve group for every gas type must be with separate replaceable ball valve, device for physical separation and NIST-body (acc. to EN 739) for emergency supply of monitored area.
- Pressure gauge and electronic pressure sensor must be an integrated feature of the valve group.

**Final assembly**

- Wall frame and door made of shockproof plastic.
- Display unit integrated in the upper part of valve box with pressure gauge must have clearly identifiable light displays for displaying the normal status (green) and alarms for too high and too low of pressure (red) and audible alarm. Gas-types must be individually labeled in distinct letter size (min. size 12).
- Additional labeling possibilities should be there for the monitored area.
- Ergonomically access button must only be reinserted with a key, for opening the valve box in emergency cases.

**Design**

- Microprocessor-controlled monitoring of pressure range with visual and audible alarm display for too high or too low of pressure in reference to the standard pressure must be a feature.
- Green light should display the standby mode for all gas types.
- Forwarding of messages and analog pressure values for displaying in a building management system must be a feature. (optional)
- Pressure measurements can be shown on remote displays. (optional)
- Alarm threshold for all gases can be freely selected.
- Service and maintenance point should be there for testing or servicing the pressure measuring unit during operation.

**Supply-** 230 V AC

**Accessories:**

- Area control unit should be fitted with flow measuring device.
- Flow measuring device should measure the momentary flow of every medical gas in the unit and should calculate the total consumption only for OT and ICU area.
- Flow measuring device should be completely integrated in the area control unit of OT and ICU.
- An illuminated display unit on the top hat rail in the lower part of the Area Control Unit should show the measured values for all gases on an illuminated display and should have a membrane keypad for all necessary settings, as the reset of the consumption counters and the setting and deletion of individual flow alarm thresholds. Behind the door of the Area Control Unit the display unit should be well protected against unauthorized access.

**7. <u>Terminal Units</u>**

- Each terminal unit must be gas specific.
- Check valve and maintenance valve must be separate components.
- It must not be possible to reassemble components in such a way that the fully-assembled terminal unit is no longer gas-specific.
- Material used in terminal units must have no electrolytic corrosion property.
- Coding of all relevant components for non-interchangeable connections
- Design enhances rapid installation on site
- Efficient & safe maintenance replacement of 2nd fix without interruption of hospital service
- Meets the requirements of EN ISO 9170-1
- Probe parking position must be a standard feature of the gas outlet.
- In case of wall mounting terminal units must be provided in two parts.

- First part should be grouted in wall and brazed with distribution pipe before finishing the interiors of the room and should be covered with threaded cover to avoid any damage to the first part and to avoid any dust entry inside the copper pipe .
- Second part should be designed so that it can be fitted easily with the first part without damaging the interior work of the room.

**Anesthetic gas scavenging system** AGSS-Terminal unit with probe for the purpose of conveying scavenged anesthetic gases to an appropriate place of discharge must meet following requirements.

- Low-flow disposal system with extract flow rates of 25 – 50 l / min.
- No extra pump should be required for this system.

8. **Distribution System**

Copper pipes must meet following requirements.

- Internal surface of copper pipes must be degreased and cleaned.
- Residual oil content must be less than 0,2 mg/dm²
- Ends of copper pipes must be closed by caps
- Copper pipes must be tested for leaks, material homogeneity and freedom from tears by an eddy-current tear tester acc. to DIN EN 1971
- Identification should be marked lengthwise in distance of 0,5m as following

  Norm Temper Designation – Size.
  Production Date – Manufacturer.
  Gas type labels with symbol lettering
  Colour acc. to ISO 32 in neutral colour
- Inert gas shielding must be used during the brazing of copper pipes to avoid any oxidation inside copper pipes.
- Copper pipes should be as per EN13348 standard and should have third party inspection certificate.

Ball valves with socket ends

Ball valve with male screw threads and flat tightened solder unions, front ends with slots to incorporate o-ring, oil-free and degreased, for medical gases and vacuum, handle with safety device securing handle in operating position, marked acc. DIN EN 19.

- body : brass
- ball : stainless steel
- seals : PTFE, bilateral sealed
- connection : brass solder unions
- handle : cast metal, white varnished
- o-ring : EPDM
- range of temperature : 0° - 50 ° C

**General Description:**

Modular structured bed head unit, made of extruded aluminum profiles with front side cover plates in various lengths and two-sectional. The main duct must allow for the installation of gas terminal units and power supply components.

As per selection, one of the following combinations of lighting and profile-integrated standard equipment rail 25x10 mm must be available for delivery:

1.) Standard equipment rail on top, and installation of light components for the reading light in the bottom duct.

2.) Standard equipment rail on bottom, and installation of light components for the indirect lighting and the night light in the top duct.

To make the installation of the bed head unit as easy as possible, the gas terminal units have to be already installed and tested during pre-installation of the medical gas system. After completion of all other assembly work, the bed head units need to be installed and then electrically connected. With this, the bed head unit is mounted onto the medical gas terminal units, which have already been installed and tested. As a result, there is no interface in the bed head unit to the medical gas system.

The supplier of the medical gas system must provide assembly aids for the installation of the gas terminal units, to ensure that the gas terminal units are installed in correct intervals on the wall.

The electrical connection for high-voltage and low-voltage supply components must take place either from the back or the front side.

The individual color selection for the aluminum profile and the cover plates must be made from all of the available RAL-colors. As a standard, the profile must be delivered in RAL 9002.

All surfaces must have rounded corners and the front plates must have hidden screws for easy and hygienic disinfection.

Technical Data:

| | | |
|---|---|---|
| Dimensions: | length: | 1500 mm |
| | height: | 213 mm |
| | depth: | 135 mm |
| Material: | | aluminum |
| Resistance: | | disinfectant- and corrosion-resistant |
| Color of front plates: | | RAL 9002 |
| Color of profile: | | RAL 9002 |
| Load capacity Standard rails | | Upto 50 kg per metre. |

**Each supply unit/bed/workplace should equipped with:**

*Power supply:* 12 x 230V power sockets.

*Medical gases (completely piped for installation):*

2 x terminal unit(s) ,oxygen'

1 x terminal unit(s) ,vacuum'

*Low-voltage power accommodation:*

2 x RJ45 outlet(s) for data technology

1 x vacant outlet(s) for nurse call (Only cutout)

Terminal Units (Gas outlets) - DIN

The terminal units must be according to DIN EN 737-1 and DIN 13260-2 standards.

For the release bushings there should be a choice to select between a color neutral or an ISO color coding.

DIN plug-in couplings and release bushings Plug-in couplings should be acc. to German Standard DIN 13260-2 with gas-type specific, non-interchangeable shape and two stage locking mechanism. Internal safety mechanism must be ensured by means of pin combination. The housing should be made of glass fibre reinforced plastic.
The release bushing should have gas-type label with symbolic gas-type inscription incl. label reading: "Do not use outlet/System under test".
Each terminal unit must be gas specific. Check valve and maintenance valve must be separate components. It must not be possible to reassemble components in such a way that the fully-assembled terminal unit is no longer gas-specific. Material used in terminal units must have no electrolytic corrosion property. Coding of all relevant components for non-interchangeable connections. Design should enhance rapid installation on site Efficient & safe maintenance replacement of 2nd fix without interruption of hospital service.

Probe parking position must be a standard feature of the gas outlet. In case of wall mounting or concealed mounting, terminal units must be provided in two parts. First part should be grouted in wall and brazed with distribution pipe before finishing the interiors of the room and should be covered with threaded cover to avoid any damage to the first part and to avoid any dust entry inside the copper pipe . Second part should be designed so that it can be fitted easily with the first part without damaging the interior work of the room.
Product should be CE certified.
Product should be EN 60601 – 1 and ISO 11197 certified.
Manufacturer should have ISO 9001, ISO13485 and ISO 14001 certified.

The existing Air Compressors, Vacuum Pumps, Manifolds etc would be taken in buyback. Following would be under buyback:

1. Oil free Compressors make- Anest Iwata motherson limited. Model: TFT100B-9 – 2nos
2. Vacuum Pumps, make Ingersoll Rand (T30) model: V244, Motor-Hindustan -2 nos
3. Automatic Oxygen Manifold System- Jambotkar make – 1 no

## 53. OPERATION TABLE

1. Mobile electro-hydraulic universal operation table OT Table with integrated xray cassette tunnel with removable and interchangeable head and leg sections. OT Tables to be supplied with patient transfer device- preferable Exchangeable Tabletop system (possible to remove table top using trolleys for patient transportation and should easily fir on OT table base)
2. Functions of the table realized through electro-hydraulic actuators adjustable via wire controller
    - height adjustment
    - Lateral tilts
    - longitudinal tilts
    - “0” position one-button activated

- Wire controller equipped with LED indicators of battery charging level
- Back rest adjustments

3. Additional control panel placed on the side of the column with the same functions as on wire controller, with diode indicators of battery charging level.
4. Alternative drive (manual override). Consists of:
    - a)Additional control panel placed on the side of the column allowing to choose following movements:
        - height adjustment
        - Lateral tilts
        - longitudinal tilts
    - b) foot pump to perform the movement.
5. Battery power supply 24 V with charger built-in table base.
6. Total length min: 2000 mm
7. Total width min: 500 mm
8. Table top with side rails for installation of additional equipment
9. Table-top height adjustment in range min: 750 - 1080 mm
10. Back rest adjustment min: - $30^0$ - $80^0$
11. Head rest adjustment min: - $45^0$ - $45^0$
12. Both sides lateral tilt adjustment min: +/- $20^0$
13. Trendelenburg/Rev- Trendelenburg position adjustment, +/- $40^0$
14. Leg rest adjustment min: - $90^0$ - $20^0$
15. Leg rests with possibility of abduction by min 180° - to be locked using clamps
16. Six section Table-top consists of following sections:
    - head rest
    - back rest divided, with kidney bridge in proportion 1:2 enabling move up to 120 mm
    - seat rest
    - two-part leg rests
17. Head rest manually operated and leg rests adjustments gas spring supported.
18. High mobility with 4 wheels, all rotational for better mobility but should also have locking facility
19. Remote operated brake system
20. All external construction elements and covers made of stainless steel or rubber. Covers made of different materials like plastic are not acceptable. Antibacterial resistance should be there either with coating of active silver ions reducing bacteria Ecoli and MRSA by min 99% or antibacterial paint coating to reduce bactria Ecoli and MRSA by min 99%. For any above method it has to be confirmed by test results from authorized laboratory.
21. Antistatic, seamless , removable, mattresses made of polyurethane foam resistant to disinfecting agents. Antibacterial resistance should be there either with coating active silver ions reducing bacteria Ecoli and MRSA by min 99% or antibacterial paint coating to reduce bactria Ecoli and MRSA by min 99%. For any above method it has to be confirmed by test results from authorized laboratory.
22. Maximum load limit min. 225 kg
23. Table weight not more than 250 kg

Scope of supply for one Table:

24. Table must enable possibility of taking X-ray pictures on whole length of table-top and

| | |
|---|---|
| Mobile Trolley Holder for all accessories | 1 nos |
| Anesthetic Screen | 1 nos |
| Arm Board with pad and clamp | 2 nos |
| Body strap | 2 nos |
| Arm strap | 2 nos |
| Gynaec / Uro Attachments | 1 set of each |
| Orthopaedic imported attachments | 1 set |
| Neuro Surgery Attachments imported (MAYFIELD / DORO) for lying and sitting position includes:-<br>Swivel adaptor<br>Skull clamp<br>Reusable Skull pins, pediatric (3pcs)<br>Reusable Skull pins, adult (3pcs) | 1 set |
| Shoulder Support | 1 set |
| Ophthalmic Table | For Only one table |

C-arm monitoring of patient on whole length of table-top, particularly:

a. table-top X-ray translucent, mounted to the table column, without transversal metal beams.
b. taking of X-ray pictures using the universal X-ray tray, slideable in the tunnel inside the table-top.
c. table-top longitudinal shift min. 300 mm.
d. Head rest and leg rest should be interchangeable

25. Battery Backup up to 60 operations with an inbuilt battery charger
26. Should have a average life time of approximately 10 years.
27. Should have IP-X4 degree of protection with Class I protection against electrical shocks

Existing OT Tables will be taken under buyback. Following are under buyback:

a. Medicraft make- hydraulic type -5nos
b. Semco make- hydraulic /remote operated -1 no
c. Surgident make- hydraulic/remote operated -1 no
d. Medicraft make- hydraulic/pedal control in ophthalmic OT

## 54. ANESTHESIA WORKSTATION WITH MULTIPARA MONITOR- PENDANT MOUNTED

1. Compact and modular, three gas Anaesthesia workstation with an integrated ventilator for adult to infants and integrated airway monitor for airway pressure, volume, FiO2.
2. The machine should be suitable for low and minimal flow anesthesia application with compliance compensation of breathing ckt, fresh gas flow compensation,

3. The machine should have 1 drawer
4. The anaesthesia machine, vaporizer and patient monitor should be manufactured by same company
5. System should be designed by international and European standards (ISO/EN 740and ISO 9000/9001 ) labeled with CE marking.
6. The calibration of the O2 sensor should be possible during ventilation
7. Gas delivery system

- Should have pin index yokes for Oxygen & Nitrous Oxide besides separate connection for Central gas supply for Oxygen, Nitrous Oxide and Air.
- The machine should have pressure gauges for cylinders & central supply lines mounted on front of Anaesthesia machine for better visibility. The gas connections should be non-interchangeable.
- Automatic cutoff of N2O by Oxygen pressure failure.
- The flow of Oxygen and N2O should be independent but having hypoxic guard which should be fail safe
- Audible & visual alarm message for oxygen failure for seven seconds
- Emergency Oxygen flush at 30 – 70 L/min bypassing the vaporizer.

8. Flow meter

- Dual Cascade type flow meter tubes for Oxygen & N2O.Range 20 ml / min to 10 Lit/min. Calibrated in multiple scales. Single tube for air 100 ml to 14 L/ min.

9. Vaporizer
    - Machine should have possibility to mount two quick mount type vaporizer for easy interchangeability.
    - The vaporizers should have interlocking to allow use of only one vaporizer at a time.
    - Should be provided with a Temperature / pressure compensated and flow independent Vaporiser for Isoflourane & Sevoflourane.
    - Vaporizer should have extended delivery range from 0 to 6 Vol. %
    - The vaporiser design should be life time Calibration & Maintenance free. If the bidder supplies vaporizers that requires periodic calibration than the cost of calibration & Maintenance for 10 years after installation should be taken in to consideration for commercial bid. The cost of periodic calibration and maintenance should be quoted separately in commercial bid.
10. Breathing System
    - Should have fresh gas de-coupled semi closed circle absorber system.
    - Delivery of tidal volume to the patient should be independent of set fresh gas flow. Todal volume must not increase or decrease with change in fresh gas flow during ventilation.
    - Should have calibrated & adjustable pressure relief valve from 5 to 75 mbar.
    - Should have change over from Spontaneous to Bag ventilation with single switch.
    - Should have optimised absorber canister approx 1 or 1.5 Ltr.
    - Should have an external fresh gas outlet for connecting Magill or Bain's circuit
    - Breathing system warmer

11. Anaesthesia Ventilator
    - Electronically controlled and electrically/pneumatically driven ventilator should not require any driving gas
    - Should not require changing of bellows for adult & infants.
    - Modes: Volume controlled, Manual/Spont., Pressure controlled
    - Tidal Volume : 20 ~ 1400 ml
    - PEEP : 0 ~ 20 mbar
    - Breathing Frequency : 4 to 60 BPM
    - I:E Ratio : 4:1 to 1:4
    - Inspiratory pause : 0 – 50% of Ti
    - Frequency 1 to 60 1/ min, I : E = 4:1 to 1:4.
    - Should automatically compensate for Compliance of breathing ckt.
    - Should have Desflurane compensation.
    - Should not require additional gas for driving ventilator.
    - Should be able to ventilate with atmospheric air (incase of electrically driven) or should use air for driving (in case of pneumatically driven) when Oxygen and power failure occurs.
12. Airway monitoring
    - Integrated monitor having 10 -14" Color TFT display of following parameters :
      Expiratory Tidal Volume
      Expiratory Minute volume
      PEEP, Peak & Mean and Plaetau airway pressure
      Frequency
      Insp. Oxygen concentration
      Waveform display for Airway pressure.
13. Alarm limits & alarms
    - Adjustable high / low limits with audio and visual alarms for the following :
      Minute volume,
      Airway pressure (incl stenosis and disconnect),
      Insp oxygen concentration,
      Audio power supply fail alarm,
      fail to cycle warning.
      No Fresh Gas flow & Low Fresh Gas flow.
14. Backup
    Anaesthesia machine should have battery backup of minimum 45 min and should support ventilator and PVO monitor.

MULTIPARAMETER PATIENT MONITOR

1. Should be suitable for adult, paediatric neonatal patients monitoring.
2. Should display large fonts and provide access to 12 waveforms.
3. Should have minimum 24 hours of real time trend and patient information at the bedside as standard
4. Should have event recall minimum up to 150 events (20sec for all monitored parameter at the time of the evnt regardless of what is displayed on screen), drug dose calculations, alarm logs, Oxygen/ventalation & Hemodynamics calaculations as standard

5. Should have minimum ECG, NIBP, SpO2, 2 IBPs, 2 Temp., OxyCRG as standard . All other parameters should be through upgrades as pods or modules/ software.
6. Should have Arrhythmia detection including all life threatening arrhythmias such as Vent Fib, Asystolic, Vent Tachy, Brady as standard feature
7. Should have manual as well as automatic setting of screen format, mini trend and should support min 10 different layout.
8. Should have user selectable parameter priority & colour selection for parameter on screen.
9. Should have excellent cable management with as minimum as possible cables at monitor & patient end for maximum comfort to patient as well as user.
10. Should have Defibrillator and ESU protection.

Should have following parameters

11. ECG

- 5 lead or 6 lead ECG cable with facility of dual V lead display
- Should display minimum 5 leads of ECG by connecting 6/5 ECG lead wires (Reduced lead set algorithm) as standard feature with max. Lead positions as per standard Biploar, Unipolar & pericardial lead positions as standard with all monitors
- Should have single lead wire for all electrodes (RA, LA, LL, RL, V)

12. RESPIRATION

- Through impedance pneumography/ Capnography method for Adult, Pediatric & Neonatal patients

13. SpO2

- Should have option for both Nellcor as well as Masimo SET technology with respective sensors
- Should be supplied with Masimo SET technology with Masimo sensors

14. NIBP
    - By oscillometric principle of measurement with stepwise deflation.
    - Should display Systolic, diastolic, mean pressure in large easy to read display
    - Should have manual/ stat mode or automatic mode with adjustable time intervals from 2 – 240 minutes and adjustable alarm limits
    - Monitor should have capability for continuous beat to beat arterial pressure monitoring through non-invasive technique (preferred)
15. IBPs Monitoring of 1 IBP as standard
16. Temperature – two temperature one core and second skin simultaneous monitoring.
    - Simultaneous monitoring of Dual temp and dual IBP should be possible
    - Option for both wired & wireless networking and should be network ready for wired networking
    - Same monitor should have capability to satisfy the needs of ICU & OR monitor
    - Should give direct access to Web Based applications
    - Should give direct access to Web-based applications, without requiring extra servers or licenses (such as Microsoft® clients, Citrix)
    - Should display single point access to all patient vital signs data as well as current information from cath Lab, X-ray, DICOM, HIS and more if connected.

- Monitoring solution should use standard networking infrastructure to allow remote Web access to the bedside
- Web browsing facility to review each networked monitors data through hospital LAN via office PC in Hospital LAN Network and/or through dial up facility from remote location as standard. Quote for one number separately and specify the no of device capacity for one number

Following upgrades should be available–

1. Neuro Muscular Monitoring (NMT) module.
2. Diagnotic 12 Lead
3. EEG – minimum 4 channels with display of spectra
4. BISx Module for measuring dept of anesthesia with 30adult BIS sensors
5. Cardiac Output module for measuring the cardiac output using the thermodilution technique with four Invasive pressure channels.
6. Module for continuous beat to beat arterial pressure monitoring through non-invasive technique. Continuous Non Invasive Arterial pressure as an optional feature.
7. Slave display 17" with connection cable etc.
8. Monitor should have capability to display ventilation parameters, waveforms & loops of anaesthesia & ICU ventilator via MIB for select models (Optional)
9. Facility of automatic charting solution with data archival facility (optional).

Standard Scope of supply must include:

- Main unit
- 5/6 lead ECG Cable
- SpO2 finger sensor with extension cable
- Skin temperature Probe
- Rectal / Esophegal temperature probe
- NIBP Hose with Adult, Pediatric & Neonates cuffs
- IBP reusable cable for 2 IBP and 10 pcs disposable transducers per monitor

## 55. ANESTHESIA WORKSTATION WITH MULTIPARA MONITOR- TROLLEY MOUNTED

1. Compact and modular, three gas Anaesthesia workstation with an integrated ventilator for adult to infants and integrated airway monitor for airway pressure, volume, FiO2.
2. The machine should be suitable for low and minimal flow anesthesia application with compliance compensation of breathing ckt, fresh gas flow compensation,
3. The machine should have 3 drawers
4. The anaesthesia machine, vaporizer and patient monitor should be manufactured by same company
5. System should be designed by international and European standards (ISO/EN 740and ISO 9000/9001 ) labeled with CE marking.

6. The calibration of the O2 sensor should be possible during ventilation
7. Gas delivery system

- The flow of Oxygen and N2O should be independent but having hypoxic guard which should be fail safe

11. Flow meter

- Dual Cascade type flow meter tubes for Oxygen & N2O.Range 20 ml / min to 10 Lit/min. Calibrated in multiple scales. Single tube for air 100 ml to 14 L/ min.

12. Vaporizer

- Machine should have possibility to mount two quick mount type vaporizer for easy interchangeability.
- The vaporizers should have interlocking to allow use of only one vaporizer at a time.
- Should be provided with a Temperature / pressure compensated and flow independent Vaporiser for Isoflourane & Sevoflourane.
- Vaporizer should have extended delivery range from 0 to 6 Vol. %
- The vaporiser design should be life time Calibration & Maintenance free. If the bidder supplies vaporizers that requires periodic calibration than the cost of calibration & Maintenance for 10 years after installation should be taken in to consideration for commercial bid. The cost of periodic calibration and maintenance should be quoted separately in commercial bid.

13. Breathing System

- Should have fresh gas de-coupled semi closed circle absorber system.
- Delivery of tidal volume to the patient should be independent of set fresh gas flow. Todal volume must not increase or decrease with change in fresh gas flow during ventilation.
- Should have calibrated & adjustable pressure relief valve from 5 to 75 mbar.
- Should have change over from Spontaneous to Bag ventilation with single switch.
- Should have optimised absorber canister approx 1 or 1.5 Ltr.
- Should have an external fresh gas outlet for connecting Magill or Bain's circuit
- Breathing system warmer

15. Anaesthesia Ventilator

- Electronically controlled and electrically/pneumatically driven ventilator should not require any driving gas
- Should not require changing of bellows for adult & infants.
- Modes: Volume controlled, Manual/Spont., Pressure controlled
- Tidal Volume : 20 ~ 1400 ml
- PEEP : 0 ~ 20 mbar
- Breathing Frequency : 4 to 60 BPM
- I:E Ratio : 4:1 to 1:4
- Inspiratory pause : 0 – 50% of Ti
- Frequency 1 to 60 1/ min, I : E = 4:1 to 1:4.
- Should automatically compensate for Compliance of breathing ckt.
- Should have Desflurane compensation.
- Should not require additional gas for driving ventilator.

- Should be able to ventilate with atmospheric air(incase of electrically driven) or should use air for driving (in case of pneumatically driven) when Oxygen and power failure occurs.

16. Airway monitoring

- Integrated monitor having 10 -14" Color TFT display of following parameters :

Expiratory Tidal Volume
Expiratory Minute volume
PEEP, Peak & Mean and Plaetau airway pressure
Frequency
Insp. Oxygen concentration
Waveform display for Airway pressure.

17. Alarm limits & alarms

Adjustable high / low limits with audio and visual alarms for the following :

- Minute volume,
- Airway pressure (incl stenosis and disconnect),
- Insp oxygen concentration,
- Audio power supply fail alarm,
- fail to cycle warning.
- No Fresh Gas flow & Low Fresh Gas flow.

18. Backup

Anaesthesia machine should have battery backup of minimum 45 min and should support ventilator and PVO monitor.

MULTIPARAMETER PATIENT MONITOR

1. Should be suitable for adult, paediatric neonatal patients monitoring.
2. Should display large fonts and provide access to 12 waveforms.
3. Should have minimum 24 hours of real time trend and patient information at the bedside as standard
4. Should have event recall minimum up to 150 events (20sec for all monitored parameter at the time of the evnt regardless of what is displayed on screen), drug dose calculations, alarm logs, Oxygen/ventalation & Hemodynamics calaculations as standard
5. Should have minimum ECG, NIBP, SpO2, 2 IBPs, 2 Temp., OxyCRG as standard . All other parameters should be through upgrades as pods or modules/ software.
6. Should have Arrhythmia detection including all life threatening arrhythmias such as Vent Fib, Asystolic, Vent Tachy, Brady as standard feature
7. Should have manual as well as automatic setting of screen format, mini trend and should support min 10 different layout.
8. Should have user selectable parameter priority & colour selection for parameter on screen.
9. Should have excellent cable management with as minimum as possible cables at monitor & patient end for maximum comfort to patient as well as user.
10. Should have Defibrillator and ESU protection.

Should have following parameters

11. ECG

- 5 lead or 6 lead ECG cable with facility of dual V lead display
- Should display minimum 5 leads of ECG by connecting 6/5 ECG lead wires (Reduced lead set algorithm) as standard feature with max. lead positions as per standard Bipolar, Unipolar & pericardial lead positions as standard with all monitors
- Should have single lead wire for all electrodes (RA, LA, LL, RL, V)

12. RESPIRATION

- Through impedance pneumography/ Capnography method for Adult, Pediatric & Neonatal patients

13. SpO2

- Should have option for both Nellcor as well as Masimo SET technology with respective sensors
- Should be supplied with Masimo SET technology with Masimo sensors

14. NIBP

- By oscillometric principle of measurement with stepwise deflation.
- Should display Systolic, diastolic, mean pressure in large easy to read display
- Should have manual/ stat mode or automatic mode with adjustable time intervals from 2 – 240 minutes and adjustable alarm limits
- Monitor should have capability for continuous beat to beat arterial pressure monitoring through non-invasive technique (preferred)

15. IBPs - Monitoring of 1 IBP as standard
16. Temperature – two temperature one core and second skin simultaneous monitoring.

- Simultaneous monitoring of Dual temp and dual IBP should be possible
- Option for both wired & wireless networking and should be network ready for wired networking
- Same monitor should have capability to satisfy the needs of ICU & OR monitor
- Should give direct access to Web-Based applications
- Should give direct access to Web-based applications, without requiring extra servers or licenses (such as Microsoft® clients, Citrix)
- Should display single point access to all patient vital signs data as well as current information from cath Lab, X-ray, DICOM, HIS and more if connected.
- Monitoring solution should use standard networking infrastructure to allow remote Web access to the bedside
- Web browsing facility to review each networked monitors data through hospital LAN via office PC in Hospital LAN Network and/or through dial up facility from remote location as standard. Quote for one number separately and specify the no of device capacity for one number

Following upgrades should be available–

10. Neuro Muscular Monitoring (NMT) module.
11. Diagnotic 12 Lead
12. EEG – minimum 4 channels with display of spectra
13. BISx Module for measuring dept of anesthesia with 30adult BIS sensors
14. Cardiac Output module for measuring the cardiac output using the thermodilution technique with four Invasive pressure channels.

15. Module for continuous beat to beat arterial pressure monitoring through non-invasive technique. Continuous Non Invasive Arterial pressure- as an optional feature.
16. Slave display 17" with connection cable etc.
17. Monitor should have capability to display ventilation parameters, waveforms & loops of anaesthesia & ICU ventilator via MIB for select models (Optional)
18. Facility of automatic charting solution with data archival facility (optional).

Standard Scope of supply must include:

- Main unit
- 5/6 lead ECG Cable
- SpO2 finger sensor with extension cable
- Skin temperature Probe
- Rectal / Esophegal temperature probe
- NIBP Hose with Adult, Pediatric & Neonates cuffs
- IBP reusable cable for 2 IBP and 10 pcs disposable transducers per monitor

## 56. INTEGRATION OF EXISTING FIRE SAFETY SYSTEM

Integration of existing fire safety system of the OT complex with the control panel of the OR System in order to prevent any disaster in the OT. Guidelines for fire safety protocol has to be complied.

**Execution Period: Entire scope of work shall be executed within 5 months from the date of issue of purchase order**.